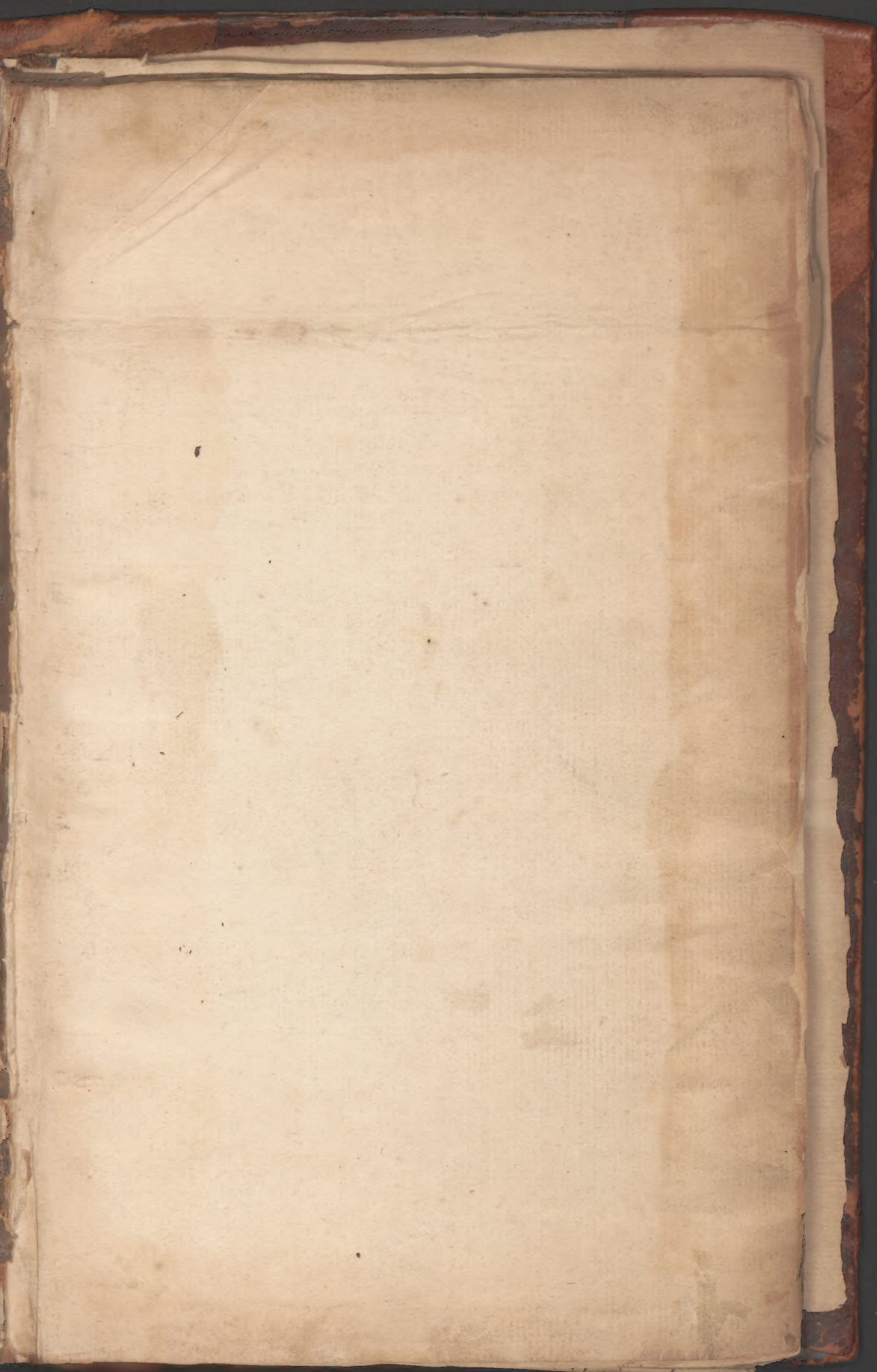


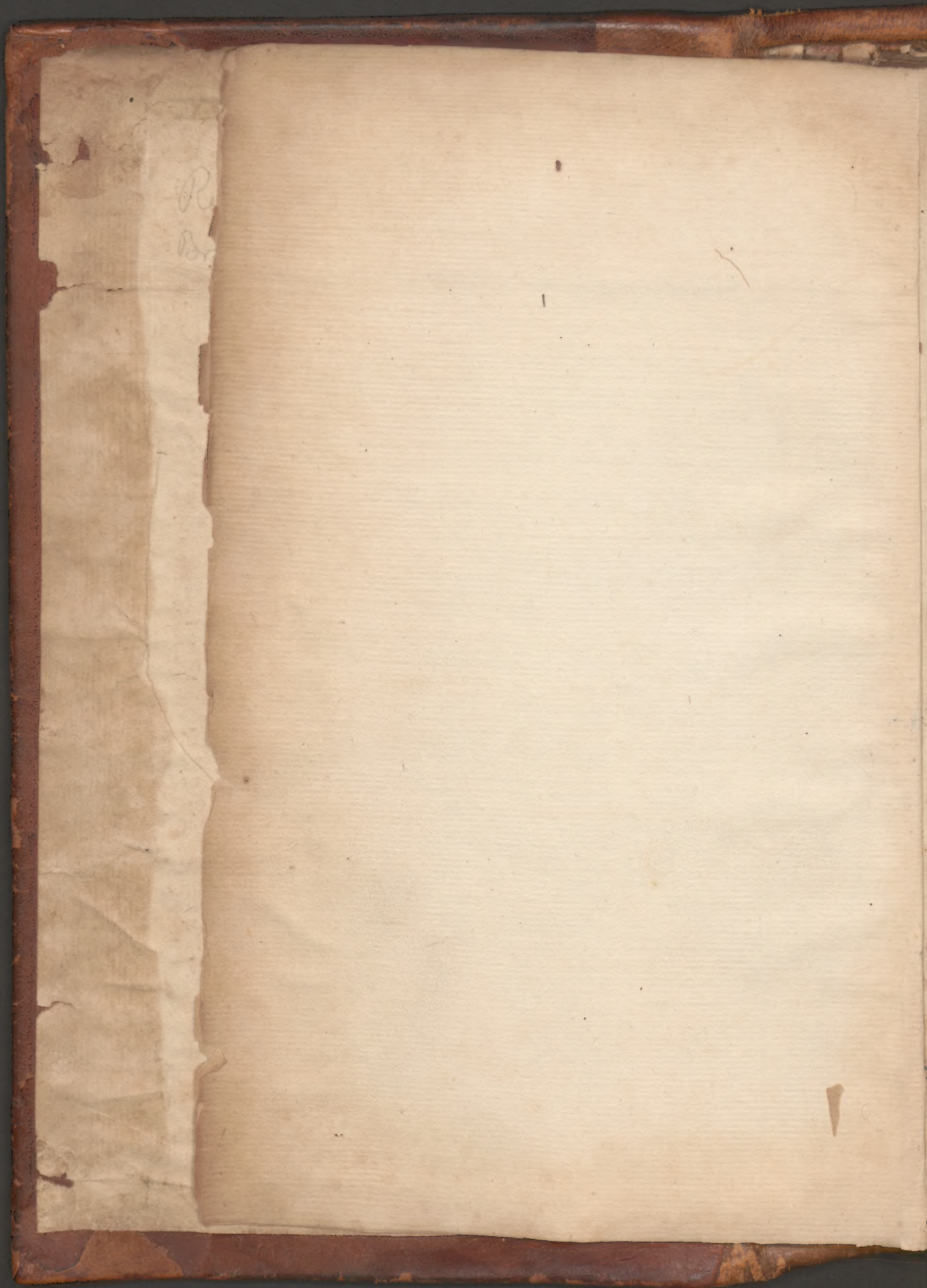
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*Lectures
on
Anatomy,*

By W. Cruikshank.

N^o 1.

Dimidium facti, qui capit, habet.

Nov.

Introduction to the Anatomical Lectures.

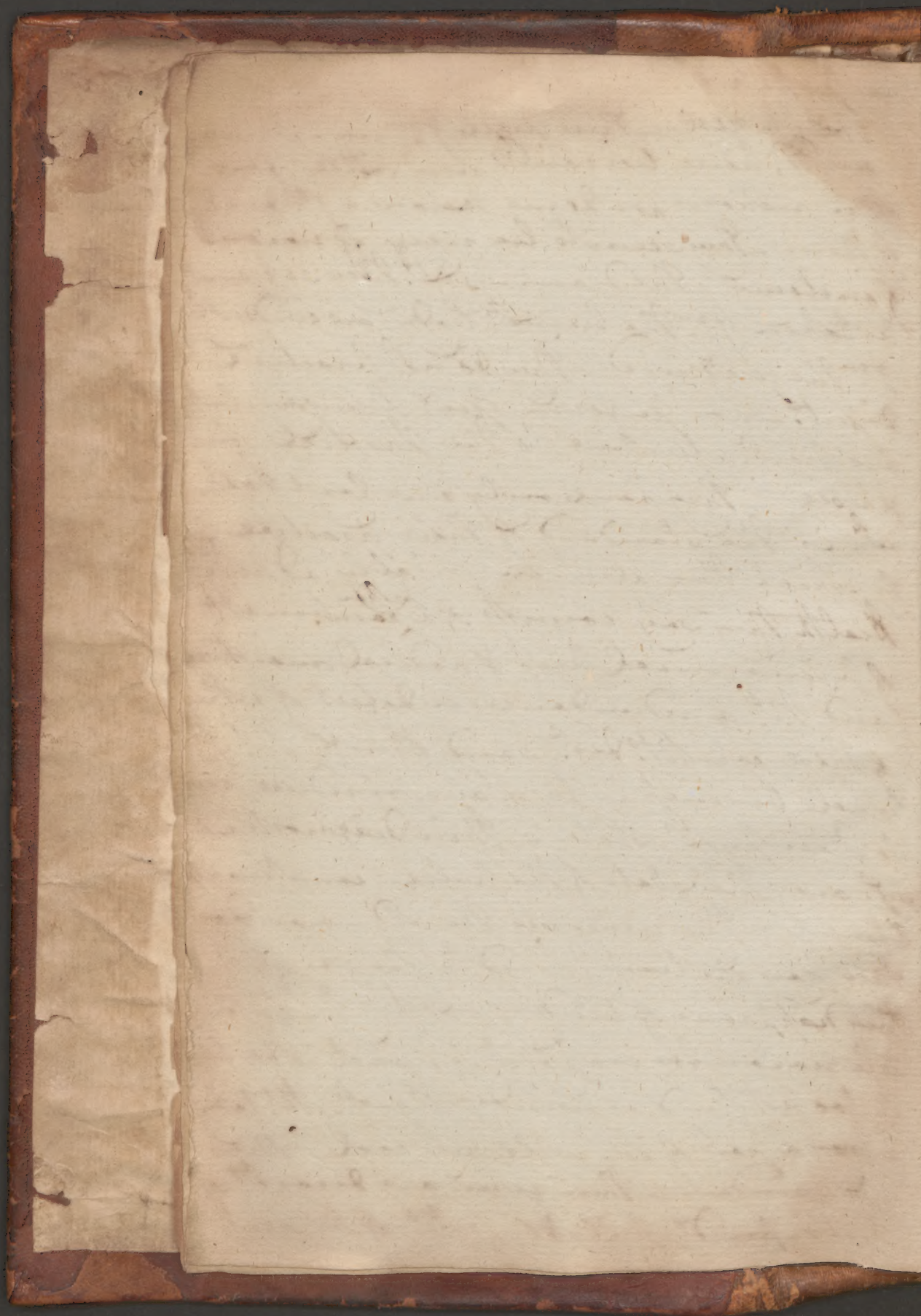
Anat. is of so much importance to
Physic. & Surg. that it is hardly possible
for them to know enough of it

The dissection of dead bodies has been objected
to, as being a barbarous practice - it is absurd
idea has orig. partly from the aversion
Mankind has to smelt with the dead, and
partly from the prejudice of Education. We
might as well contend that operations
surgery, &c. are painful, & fill the
mind with horror, & ought to be performed
as to oppose the dissection of dead bodies
It is a disgrace to this Metropolis which is
the 1st in the world, that there should be
such restriction to prevent Anatomy by
supplying the dead bodies - The utility of the
art should induce them to obtain them in
whatever manner they can, as it is just
to the Legislature - Mr. G. mentions the
different sources from which anatomy springs
the dissection of quadrupeds - of dissection of
blanks - examination of wounds in battle -
inspection of the nails of birds for sacrilege
and burning the bodies now examined
the quantity of anatomical knowledge each nation

(as this now near 4000 years old)

has popular

The Chinese - These people of an insuperable
unwieldy, have borrowed very little from
other nations nor do we know a great deal
of them - They seem to be very ignorant
of anatomy - The drawings &c. they represent
as taken from the human body, are evidently
from the quadruped - They do not practice
dissect. - nor perform spec. of surgery - but
are paid. attentive to the practice of
physic - They have only one large book
in. is the standard of their practice
to which they alw. invariably adhere
Health, they say consists of a combination
of primordial heat & radical moisture
and th. a redundancy or defect of either
of these, constit. dis. - and therefore th. of
whole business is to retain, or reduce em
to their prop. state - Their diagnostic
sig. are, the state of the pulse - countenance
& tongue - They never see the bld. - nor do
they pay the least regard to the urine
They disapprove of bleeding, supposing th. the
sole reason for cutting it, is, beca. the b.
is too hot; and conclude thence, th. taking
away a part of it, will not cool the
remainder - Their rem. are direct. of
herbs - powder - pills &c. with. of the class



head: finger: moving gently to
cardiac thro' - They particularly attend
to feel during the systole of these arteries
the skin thro' may not be in contact
their distinct: of pulses, are endless -
they say the pulse in each arm divides
into 3 - That of the right arm, according
to their ideas, belongs 1st to the lungs, 2^d
to the right kidney - and 3^d to
the 1st intest: - On the other hand, if of the
left arm belongs 1st to the heart & liver,
2^d to the left kidney - and 3^d
to the small intest: - The Physician
The pulse with 3 fingers, super? finger
distance for each thumb of one hand - and
applies his three in the same manner
to the other arm of the Pat: - He also
feels in 3 diff: methods, each of those pulses
He examines 1st superficially - 2^d he calls
the pulse of the skin - then presses a little
more firmly, w^h is of. pulse of the b^ody
moves & and after a little time, the
approaches still nearer to the bone
is called the pulse of the bones
So that if Physician attends to 3 pulses
- and all in one minute! - The
most things obscure are given a name
- and the art of Pulses is

They are said to be greatly efficacious
in obtaining the sympathy of spirits

(b) This, accord. to some Historians, was
the reason rings were 1st worn on the
finger - They were made of precious
stones - w^{ch} they imag^d. had a g^od effect
on the body -

2, 700 - 2, 712

The Egyptians - These conducted
the anatomy, by embalming dead
bodies - They are said to maintain this
doctrine - that the heart and L. by an unusual
size 50, & the R. in proportion - They
said also, that from J. heart was produced
a small nerve, which ran to the
little finger - They are said to have
carried the study of skeletons to their
entertainment - or when they desired
actually be provoked, to have brought
even human skulls to their guests,
as a memento of their mortality -

The more ancient Greeks - According to
Galen, the practice of surgery, was
superior to that of physic - The first
we have of an operation in surgery, was
by Podalirius - who bled the King's
daughter - It appears from some of
Hippocrates' writings, that of human anatomy
was perfected in his time - He & his
disciples made consid. improvement
in anatomy - Hippocrates knew some-
thing of the bones; for he describes
the parts of a man, and their difference
to those of other animals
The Greeks - The people of this nation

12 A law was made for religious mothers
for the bet. of human disposition — One reason
probably was, that they imagined the
names of the Dead, susceptible of pain
and courage of that which must accord with
their Deas to be full in cutting the
cord —

around the art of embalming - Their
views against anatomy were more strict
than those of the Greeks - It was said
that Solomon wrote a book, which treated
of the cure of dist^r and that it was deposited
in the Temple - but was taken from thence
because the people consulted it when
they wanted a remedy for a dist^r, instead
of attending to their duty of religⁱous worship -

The Romans - It does not appear
that J. Bond. was suspected to be an creature
deserving much great praise for
translating Hippocrates into elegant Latin
than for his anatomical knowledge -
He copied all his anatomy from Erasistratus
& Herophilus - In Galen's time (150 years
after Jelsus) human dissection was not
permitted at Rome - In the time of
the consulship of Lucius Cornilius, of
1st century, settled at Rome (at -

The Arabians - The Arabian, built
the famous library, founded by Ptolemy
at Alexandria - It was perhaps the
most & most complete in existence
they entirely destroyed all J. books except
Greek ones, and the few which
were saved were the writings of the

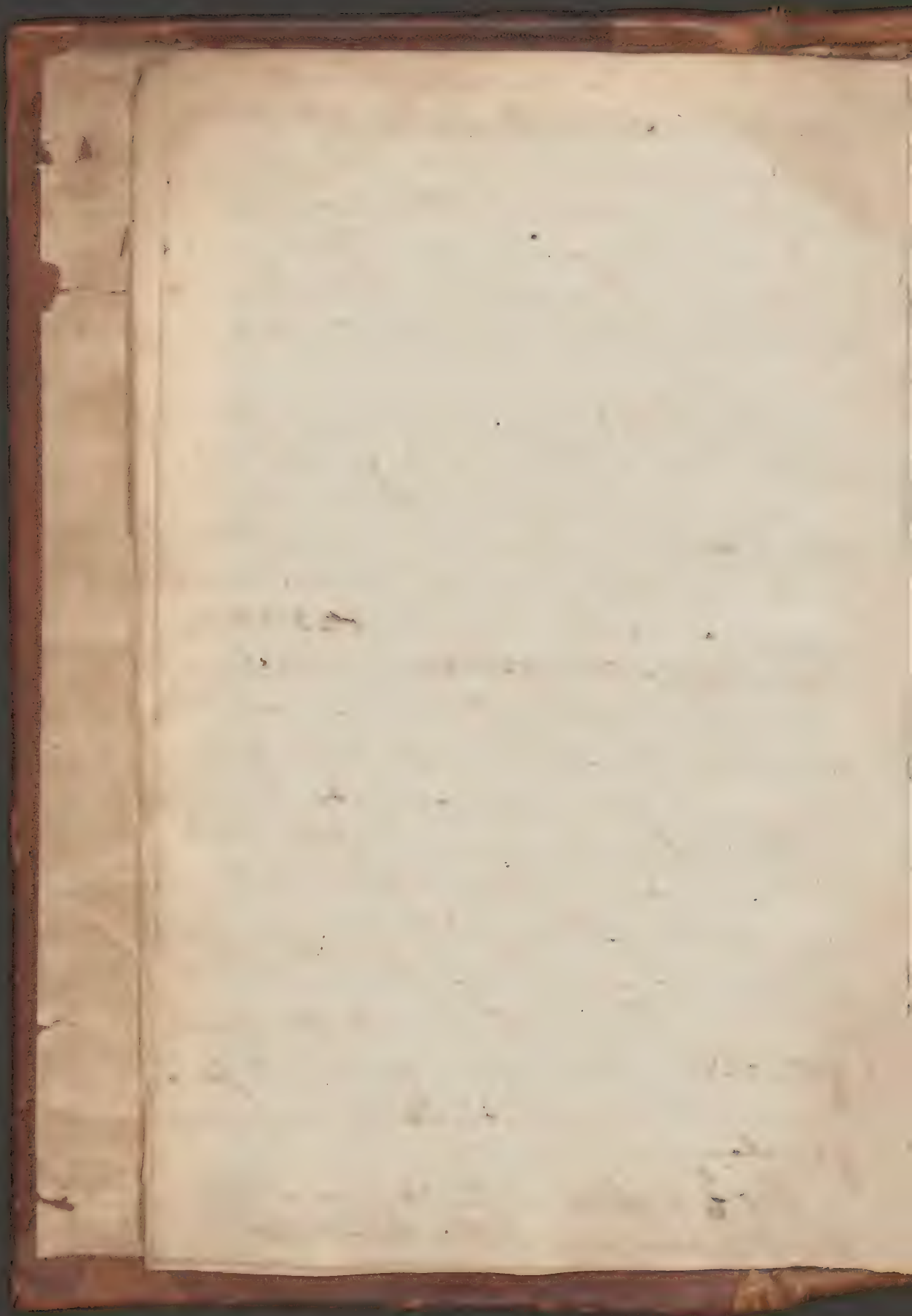
Life is a dream, or a vision, that it is
merely a scene of life which made
us come here —

Many say that the
of the still in the hands of the Italian
which we're not acquainted with - They
have had made but little progress in
anatomy - Suspicious among them, are
both before the contempt - Their pupils
think it beneath their dignity to study
surgery.

The Italians - Julius says that
anatomy died with Galen - for that his
successors have done nothing but
copy from him - There is no mention
made of a body being dissected for 1000 years
before his death - ~~But the~~
~~beginning of the 15th century~~ Michael
Angelo first injected for it. He acquired his
knowledge of natural philosophy of the
different parts of the human body -

About the commencement of the 15th
century, learning flourished in Italy and
towards the latter end of it, engraving
were more employed for the purpose of
expressing with some propriety the parts
of the body - From this fortunate period
there went on rapidly in the improvement
of anatomy -

The English obtained more know-
ledge of the circulation of



The 1st by Harvey. The 2nd by Hunter
and before — The discoveries of Dr.
Hunter, were very numerous. He
has treated so amply on the human
grand interior, that there seems scarcely
any thing left for improvement in that
at least one is ready to imagine
so — We come now to take
notice of particular anatomists and
there we shall divide into 4 classes
There were Physic. & Anatom. before
the time of Hippocrates — but those we
are totally unacquainted with —

Our 1st class commences with Hippocrates
and terminates with Galen — The 2^d is
from Galen to Vesalius & the 3^d from Vesalius
to Harvey & the 4th from Harvey to Dr.
Hunter — Under the 1st class are
comprehended — Hippocrates — Democritus
Rato — Aristotle — Dioscorides — ~~Plato~~ —
Hierophylus, & Julius —

Hippoc. lived 432 years before J. Christ
are — He was a descendant of Asclepius
and was born at Cos — and hence is sometimes
called the Cosan Sage — He was a Philosopher
but is said to have quitted philosophy
for physic — We are told that he was the

to the body he cauterized the abdomen.

and the same year he was appointed
 physician to the Marine Hospital at
 New York. He was again appointed to the
 same office in 1811. He was also
 one of the writers of the same name
 and their works called Hippocratic. There
 this gentleman is said to have translated
 several of the foreign accounts for the value of
 acquiring medical knowledge. He recom-
 mended the actual cautery in epistaxis & gutta
 serena, to be applied to the coronal artery
 temples or nape of neck with the recom-
 mendation of Marshall, to let out external blood
 as soon as the tumor was discovered.
 But he does not appear to have performed
 it. He was of opinion that wounds
 of the bladder were mortal; and therefore
 never performed lithotomy. He was
 accused of setting fire to the writings of
 Comenius, who were kept in the temple
 of Apollo after he had spent them, that
 they might not excite his competitors
 in the art.

Democrates - was a humoran & a
physician - He knew but little of the
science - He, I think, left an account
was made by him. He visited the
jail doors, and there studied anatomy
with attention -

No. 10, a Diggle of Lacerates from the
 same source - He made the first
 origin of fountain & the bed - taught
 the first of our friends from which the land
 was taken, and the water

12 He was the first who taught Dissection.

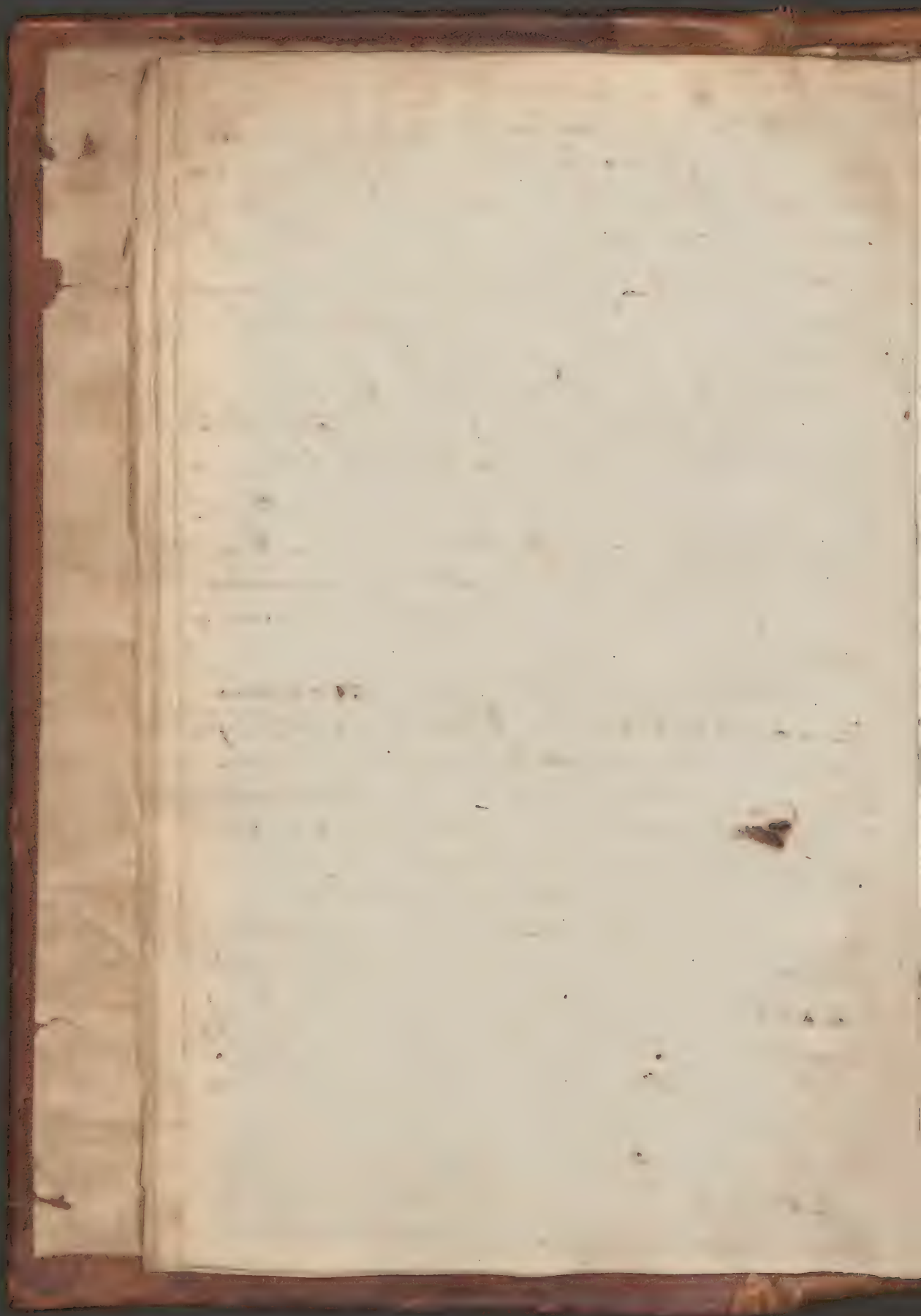
13 He is approved of by all & his
doubts: fasting in their place

was found of imposture - and by all
disappointed. It wandered up & down the
day - The glorious Physicians, masters men
of the old Physicians, explained on this
ground - that J. ulcers had handled
to the great, & such there - In short, nations
were the almost opinion of this truth;
I mean, on these subjects -

Aristotle was Preceptor to Alexander the
Great - He lived abt. 350 years before the
Christian era - He seems to have been one
of the greatest men of J. period - He
made anatomical drawings - He
wrote several books on anatomy, physiology,
natural history - but most of 'em are
lost

Diocles - lived abt. 300 y. before
~~Christian era~~ after Hippocrates, A 302 before
the Christian era - He practiced Surgery
& surgery after the manner of Hippocrates
He was a naturalist - lived abt. 300 y. before
the Christian era; and taught
anatomy at Egypt in Alexandria
He is the author of J. treatise on the mesenteric
glands - All his writings are lost - and
the names of him, is for Galen's
account - He thought of air was contained
in the veins, & that the
dilated itself and rushed in air
into the lungs

Alexander - was an Anatomist &
Physician - and is generally to be



and all the same period as *Quintus*
and is equally celebrated as an Author
he was accused of poisoning men asleep
for the sake of his novices -

Galien - lived in Rome 150 years before
Galen - He was full of appearances. He
was depicted by human body. He
was the first who cut for the stone in
the abdominal region - He was the first
on child. Celus. & 14. & 15. & 16. and
also in the spring - He first used the
crotchet -

The 2^d class is from Galen to *Cervinus*
including Galen - *Micrasdorus*, *Leonard*
de Vicent, *Cervinus*, *Columbus*, *Salpiaz*
& *Uistachius* -

Galen - was born at *Pergamus*, in
Asia Minor - He is celebrated as an author
of a temple dedicated to *Asclepius* 130 years
before the commencement of Christian
era & 600 years after the time of Hippocrates -
He was more remarkable
as a Practitioner in Physic, than as an
anatomist - He had many singular
opinions. He recommended *Prothopos* - but
cautioned Surgeons, against manducating
the mass matter -

Micrasdorus - was one of the famous
authors of anatomy; for he was the
first who was to Caduceus reserved it for
his honor & oblivion - He taught anatomy
A.D. 1315 -

1st the first record the origin of the
specimen is —

Leonardo da Vinci was in fact a painter
and engineer. By a celebrated anatomist
of the sixteenth C. Da Vinci, he by & means
made some progress in this art.

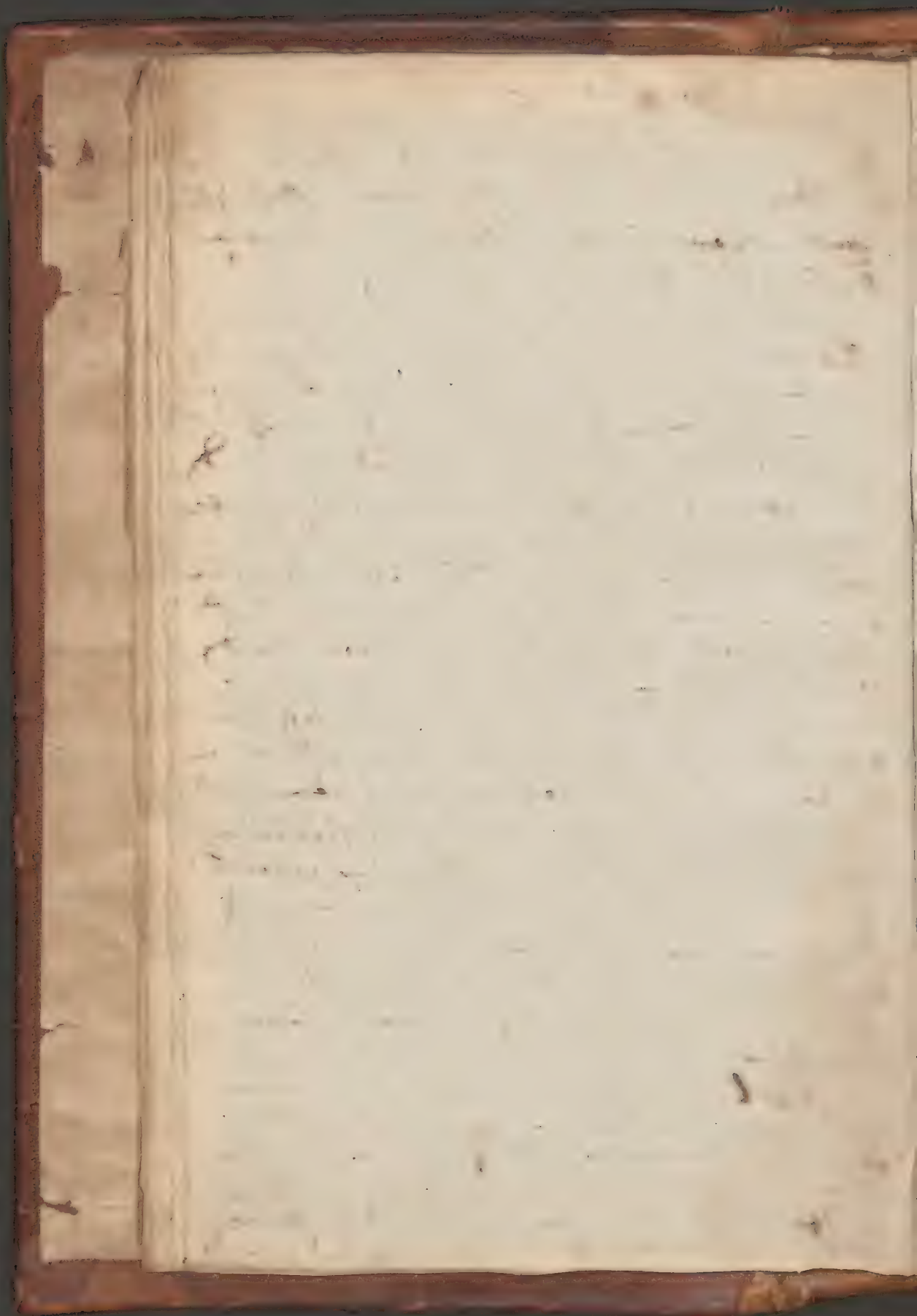
Nicolas - was born at Bologne in
1574, and was an anatomist of great
eminence. - He hazarded all to study
the human dead bodies. He taught anatomy
at Padua, and was the 1st who contradicted
the doctrine of Galen, upon his errors in
anatomy & physics -

Columbus was a pupil of Nicolas's -
he taught anatomy 15 years at Padua. He
dissected 14 subjects in one year - a prodigy
then. Though a prodigious man
he seems to have understood the circulation
of the blood. This the lungs -

Hall - was the 1st who attended to
the bones of the Fetus. He discovered the
constitution of the ligaments. It is called
Campbell's ligament -

Castellus - Professor of anatomy at Rome.
His opinion to one of the (1st) was a
man of great abilities, and did much towards
the advancement of anatomy. He was the
first who took particular notice of the kidneys,
discovered the Capula Renales and likewise
the young from the ear to the nostrils
named after him. He also discovered the
bones of the horse - His engravings
of the muscles & bones, are accurate but
the style is not so good as that of the
17th century.

As A. Adams he took his degree of
M.A. =



Verulvius - was J. P. of the
Faculty of Philosophy in medicine - He died
the 17th of Feb in 1648

Bartholin - claimed J. Viceroy of the
Faculty, but he was not J. for the writing
of Verulvius, for he did not pretend to it, 1651

Werkburgus - was a Disciple of
Verulvius, and after J. Viceroy of
anatomy at Padua

Solidor - was Professor of Philosophy
and medicine, at Wittenberg - He discovered
the muscle of the internal line of the nose
and hence it has its name - His 1st
publicat. was in 1641 -

Higmore - was of the University of
Oxford - and makes no inconsiderable figure
among the English Anatomists - He describes
the arthrum on the maxillary bone - and
has given it name for the circumstance.

Malpighi - was Professor at Bologna in
the year 1660 -

Mucsh - was a young Apothecary
and student after J. Viceroy of anatomy
at Amsterdam - His 1st anatomical works
were made public in 1665 - He
described all the pappilion the very

Leuvenhoek - If he is to be considered
as an anatomist, it must be in mind

(2) No man perhaps ever wrote so
many publications - nor filled them
with more honest —

He employed himself for some
time in the microscope. He was
born in Holland, in 1632. — He
found that the blood consisted of round particles, called
globules — that Malpighi first saw & described
them as looking like drops of oil. Leuwenhoek
said that they were 25,000 times less than
a grain of sand. He also says that each muscle
fibre is a packet made up of 3200 & per
fibres — in short, innumerable were
abundant (or rather attempt to be
calculated) of this very extraordinary man.

Morgagni — was one of the most famous
Anatomists of all the preceding Ages.
He was born in 1682. He read Lectures
at Padua for upwards of sixty years.

Witthow — was not a man of great
natural genius, but was very diligent
and had a good mechanical turn. He
was born in Denmark in 1669. His
chief excellence was in describing all
the parts of the human body in
his descriptions, as simple & distinct and
unmixed with theoretical reasoning.

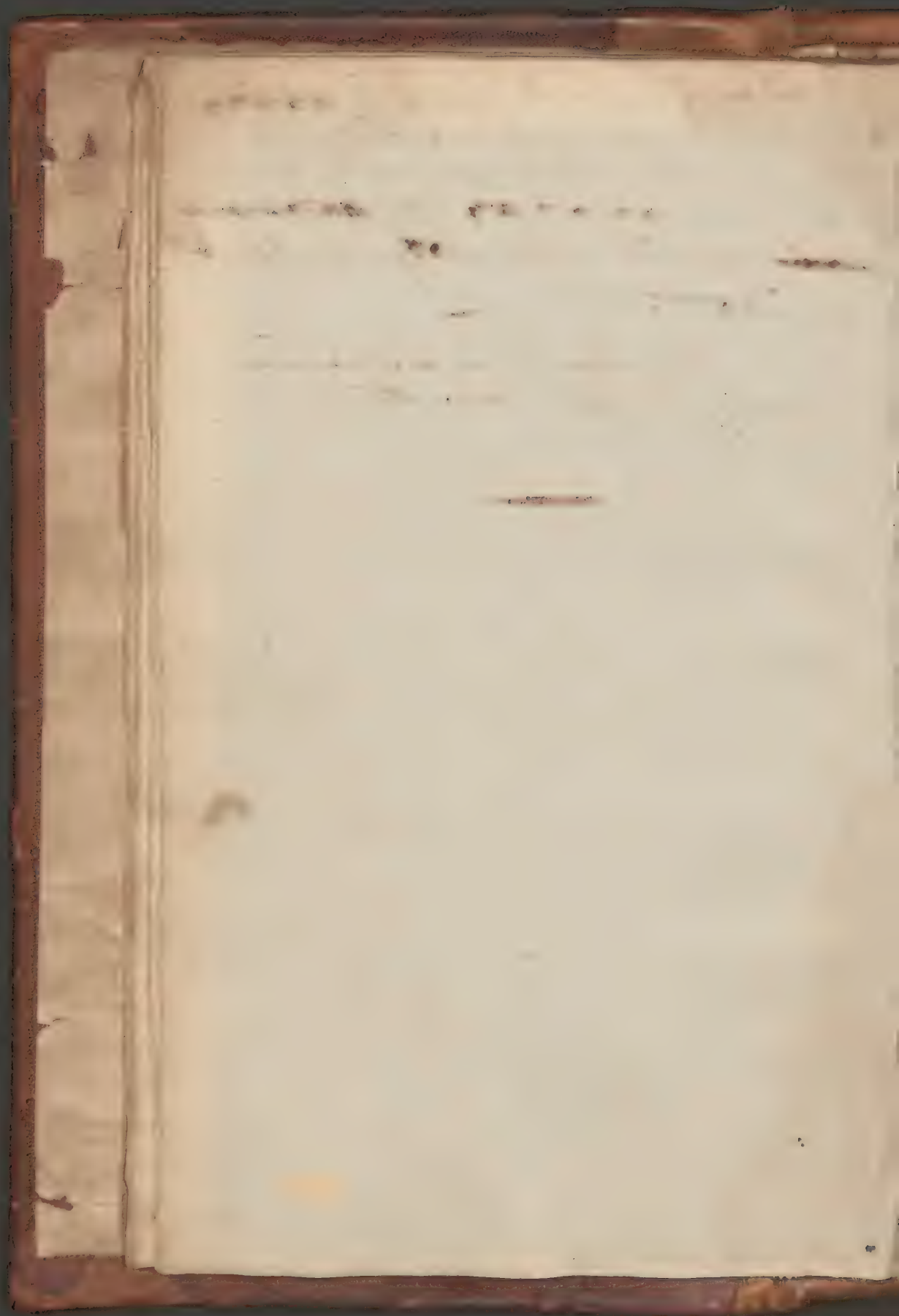
Galler — was the best Anatomist that
ever had existed in point of knowledge.
His descriptions, say much in favour of his
superiority in the art. — (at)

Dr. Hunter's description of the glands
is universal. He made
many useful improvements in anatomy.
The anatomical descriptions

a. G. H. — Should the members
directly give the returns —

reputation of England was certainly ~~very~~
owing to the genius & knowledge of this
great man - and it seems to be such
as he will ~~not~~ (as ~~the~~ ~~man~~
~~must~~ ever be acknowledged to stand
unrivalled in —

— Monuments here are pyramids,
Negatively, vultu pyramidum altius. —



of the blood

in a healthy state of the

The blood is of a red color, and is composed of a mass of small corpuscles, called globules, which are surrounded by a fluid called serum. The globules are of a red color, and are composed of a mass of small corpuscles, called globules, which are surrounded by a fluid called serum.

The blood is composed of a mass of small corpuscles, called globules, which are surrounded by a fluid called serum. The globules are of a red color, and are composed of a mass of small corpuscles, called globules, which are surrounded by a fluid called serum. The blood is composed of a mass of small corpuscles, called globules, which are surrounded by a fluid called serum.

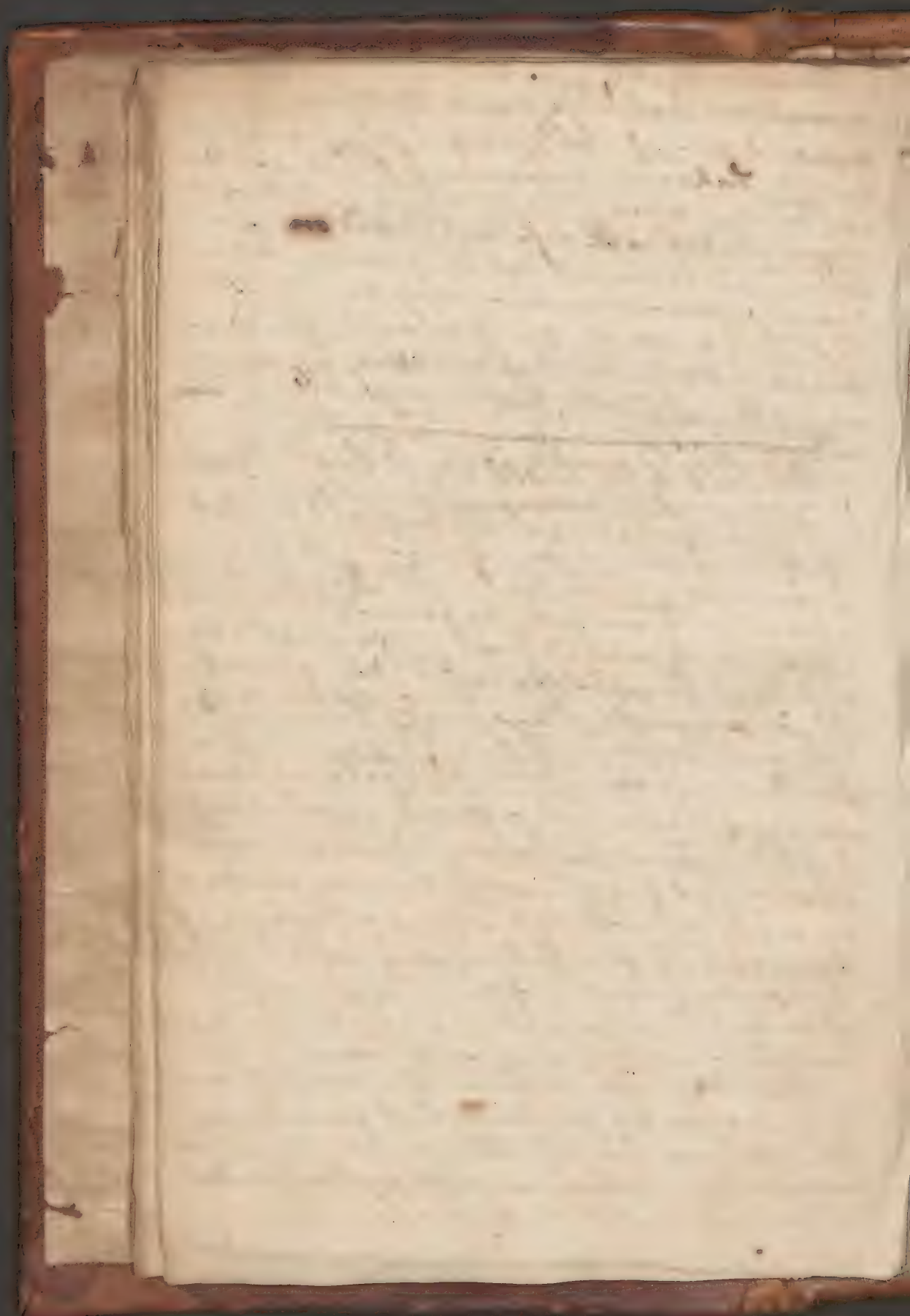
The blood is composed of a mass of small corpuscles, called globules, which are surrounded by a fluid called serum. The globules are of a red color, and are composed of a mass of small corpuscles, called globules, which are surrounded by a fluid called serum. The blood is composed of a mass of small corpuscles, called globules, which are surrounded by a fluid called serum.

A single bleeding will be so much

Mr. L. mentions an instance of a person
in a nervous fever, who was much
reduced, that was well & as at least in
all probability 8 oz. of blood taken away.

6 Mr. L. does not think this a proper
argument for the Pott. Was 4 days in
losing this blood during which time
new must be constantly forming —

Was to prevent its growing till
a strong canister of blood was
was applied. The purpose of
if it was not immediately removed
it was proper.



are very rare - There is indeed one
given on good authority, of J. B. P. 11
Richard D. Long, to the last of the 18th century
from a notice of it in the 18th century
of J. B. P. - M. L. (said) - M. L. (said) - M. L. (said)
if it is genuine, it is a very rare one
of J. B. P. - M. L. (said) - M. L. (said) - M. L. (said)
consistently
in the place of J. B. P. has been
in the place of J. B. P. has been
with these are said to be in the 18th century
perhaps more - M. L. (said) - M. L. (said) - M. L. (said)
one has been found in the 18th century - M. L. (said)
then in the 18th century - M. L. (said) - M. L. (said) - M. L. (said)
in the 18th century - M. L. (said) - M. L. (said) - M. L. (said)
has always a good deal of the 18th century - M. L. (said)
of J. B. P. is in the 18th century - M. L. (said) - M. L. (said) - M. L. (said)
is in the 18th century - M. L. (said) - M. L. (said) - M. L. (said)
first of the 18th century - M. L. (said) - M. L. (said) - M. L. (said)
in the 18th century - M. L. (said) - M. L. (said) - M. L. (said)
of J. B. P. is in the 18th century - M. L. (said) - M. L. (said) - M. L. (said)
we find it. It is necessary to life
The color of the blood is red and the color of the
blood has been said to be entirely red
but all the M. L. has examined is a perfect
transparency in the human body - but
in the human body it is not so - for
in the human body there are green and
in the human body of J. B. P. are all
perfectly transparent - but in
it has become entirely red - The M. L.
becomes of a black-blue - or black color
as one in the 18th century is

a) In a Patient W. L. had a
Brightbridge of serum was turned
to a white color exactly like milk -
w^h the sup^h had was aw^g to drinking
large quan^t. of Spirits; for when the
man left off drinking em - and his
appetite (w^h had before been very bad)
became good, it returned to its nat^l color.

b) In the arteries the blood is of
a scarlet - in the veins of a darker
color or Madam's red - I apprehend
I have the flatter color from the
effect of the air - for when it goes
into the lungs it is of a dark color
but when it comes into the left
ventricle after its passage thro' the
lungs it becomes of a scarlet or florid
red - The latter appears except for
the nourishment of the different
parts of the body, for the blood's supply
it for the support of the air somehow
or other and it is supposed that the
lungs - Now this happens is contrary
to the opinion of the possibility of the air's coming
in contact, but the blood in the lungs
and thence it may act on it through
certain branches of capillaries and
so it must be extremely thin and fine

of 2. nuclei — The glob. of shape is
probably many more constructed in
for the room. Disposition after July 1st
is original — say

The black color is only given by
large quantity of globules accumulated
together. ~~By the same~~ The blood has
a fainter, a bluish color while in
living body, but of color in used
disappears, when exposed to air.
In sponge body. If we get out the chest
immediately we find it black in the
right quantity, quite fluid. (61)

[illegible][illegible]

(a) III. Hunter uses many strong arguments to prove the life of the blood. There are the principles I meet.

1st The blood appears to carry life to every part of the body, for when it is obstructed, so as to prevent its going to a part, that part ~~loses~~ ^{loses} its vitality & dies — a part may be alive without its action, as happens in an ~~egg~~ ^{incubated} egg, as alone. And it has no motion — for the property of a living & dead egg is obviously different.

2nd That if blood does not require its fluidity from its structure, very evident, for the blood of a pulse in a shank, is fluid, tho' no motion is going forward in it.

3rd ~~It is~~ ^{It is} allowed that most parts of the body are alive & cannot bear any appearance of substance, the blood must be in harmony with it. Other parts — other organs — as an external subtil & be shown.

4th That the solid affects the blood, & that the blood was found fluid, when it had suddenly been killed by lightning or electricity — Unless it lived, it could form no union with a subtil in the body, as if jug does between 2 diaphragms, & apart of it. And I believe that the vessels themselves — if it is not by throwing out coag. lymph, & uniting the 2 surfaces together, & forming a new vessel. I never in the medical papers saw any such case, & the method

When a diff. matter is treated as a
 a common one - for in some cases
 in Suss. Fevers - 80% of bl. but when
 not well p. p. at all - the dark
 simple rusty & the thin plates
 repeated bleedings - In f. excretion of
 have been made in blood and in death
 to see if quantity within satisfactory
 has been obtained - for in an
 case over 100 grains of matter, a large
 sample a smaller quantity is obtained
 We find if of a large quat. of bl. food
 be taken, that a great part of it is
 converted into feces - but it is probable
 if of a large quat. of bl. had been wanted
 a smaller part of it had been
 converted into feces & a larger part
 of it. The quantity of bl. contained
 in each of an adult was found to be
 only ten pounds - but if much be
 more for 22 pounds have been
 in motion to the last at once - Mr. L.
 says there are 30 lb in a middle
 sized man - and that of whole of the
 organs together are about 80 lb -

Section 2^d Of the Effects of the Blood.

When we say the blood is alive we
don't mean it has sensation or feeling like
a human but that it is in the veins. (2)
The greatest plain thought of mind existing
in the body and for the whole never out of
it - not dead - but this opinion remains

(a) The right auricle, ~~has been~~ is certainly
more ~~excitable~~ than the left. for it has
a power of contr^{action} after death when the
left has not —

(b) Mr. Cantates an instance of a gentleman
who had ^{had} a quantity of fluid in the uterine
vaginalis for 9 months. which on
discharging by incision, he found to
be blood not of best coagulated —

as shown. In many cases, the
30th of Sept. back of the body along
circled in every 3 minutes
Painful motion of the heart in the right
inverted after death, is not in the heart
itself but out of it. weak motion of
the heart. For if any of the heart is taken
out of the heart and a glass is put over it
the heart will cease.
The heart is converted into blood
of others into muscle, &c. and even the
fountain of life has life, for it is capable
of being killed. The blood is
thrown into the same cavity as the thorax
muscular pump (p. 100) it does not coagulate
when it is exposed. It is called muscle
it coagulates. Does coagulate. It becomes muscular
but when in such cases, it will do this
at all times, and we know not - but we
may suppose that nature has some
good intention in giving these different
dispositions. Another argument, has
been employed for the life of blood. It
is that it coagulates. On being taken
out of the body - but there is something
to be said against this, for we find that
if blood is entirely at rest in the dead body
it does not coagulate for many hours
sometimes 24. In England there is
always a shower of rain. It is usual
to have the colds as we see in the
throat of a child. &c. - and it is
this disposition, which forms the buff
part of the blood -

When people are killed by lightning
or accidents, we find that the blood
does not coagulate. For the muscles are rigid
at once. It is not until death almost

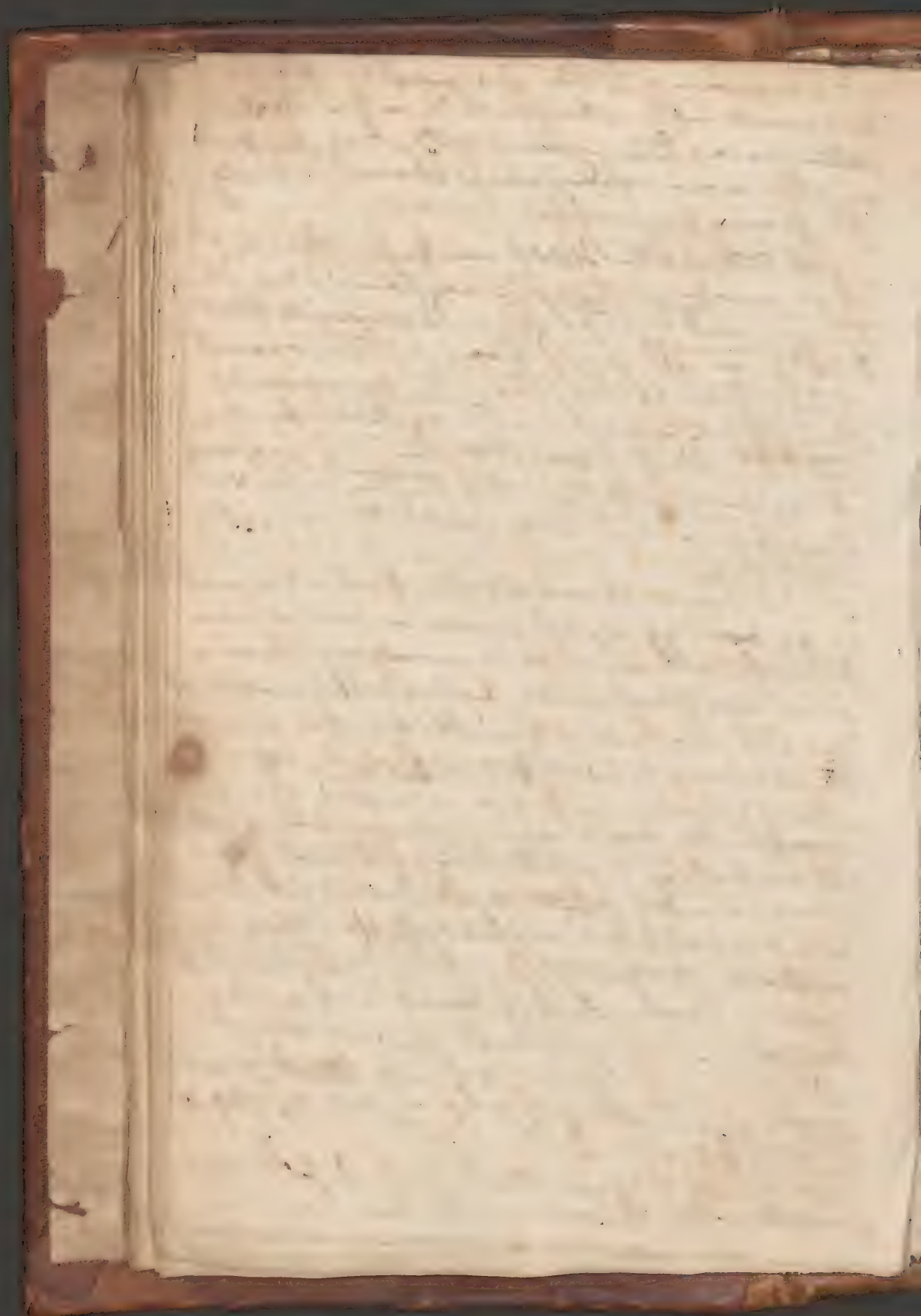
14 In the apt. made by W. Jordan, &
Sir Jos. Banks, they bore the heat of
16 & 17 degrees, & great quantity of
baited water, & in 112 days, and yet
their blood was only heated to 98°

It is owing to the principle of life
and immortality extinguish'd - In the
latter case, the great heat which is produced
in the animal betrays almost entirely
the living principle

The heat of the Blood - Haller has said
it is owing to the fire contained in it.
It was said by the old Physicians that
of blood was always hotter in the morning
than the blood than the surrounding
atmosphere - and in those which have
cold blood - that it was colder than of surrounding
the sphere - that in the latter case
this last was of course - but this is certainly
not true

In some climates the heat is so great
as 90 or 99 deg. which is one or two above
of material - that it is amazing what a
great deg. of heat may be borne by custom
for we have heard of people accustoming
themselves to bear 150, or 160 deg. - (a)

There is an instance recorded of a girl
suffering with an oven every day - which
she was obliged to get into the heat of which
was upwards of 300 by Fahrenheit's thermom.
and yet it produced no bad effects - One might
suppose of this great heat w^d be like the
boiling water - but it does not - not
that a great deg. of heat is not suff^r
veneficous - for we find that some
of the inhabitants of hot climates will deg^r
intense heat -
as I said before contained in blood - The
L-appears the opinion - It has been



(a) This was passed by a gentleman's finger
who played on a flute and had taken
calcin'd mercury, ~~made~~ turn'd of. I saw
much of that instrument, nearly black

It seems very probable that there is
dephlogeston contain'd in the blood - for
in those who have taken ^{calomel} mercury, it
has been found that it is insensible proof of
purson with turn silver of a blackish color.

The quantity of Iron contain'd in the
blood is very large - This has been
found, with the help of a magnet for
if blood be dried with fire, it will be
found, that in drawing a magnet
over it a quantity of iron will be
attracted. If or if ~~distill~~ oil of vitriol be
added to the blood, it is turn'd black - it
has been with a yet justie attracted to
its junction with iron.

That there is ~~some~~ ^{acid} alkali in the
blood. W. L. Gault very much for
observes, that for ^{the} ~~the~~ he made
by adding Symp. of violet to the blood, it was
not turn'd either to a green, or red -
But tho' there are no alkalis or acids
here - yet there are several combinations
as vol. alkali, & acetic acid, which form
sal ammoniac - Tho' we can't see any
salts in the blood by a microscope - yet if
we take a drop of blood as it comes from a
wound of a body in hemorrhage, it tastes
saltish but whether this is sea-salt, or
not, we can't be sure for in course
it is line upon right and taste in no
sea-salt - this is found - how? There are
circumstances make it app. prob. it is
cont. in blood.

101. The aff. have been made on dogs -
by giving them pieces of trutid glass,
which on inspection are now ~~found~~
after were found in the stomach perfectly
sweet & free from putrefaction

Besides these salts, we have Phosphoric
ammoniac - sea-salt - selenites &c. besides
these substances introduced

Mr. M. thinks if calc. earth is conf. in
it solid, as well as in fluids - for it has
been found that when a piece of the solid part
of the body was immersed in sulphuric
acid, that an effervescence took place

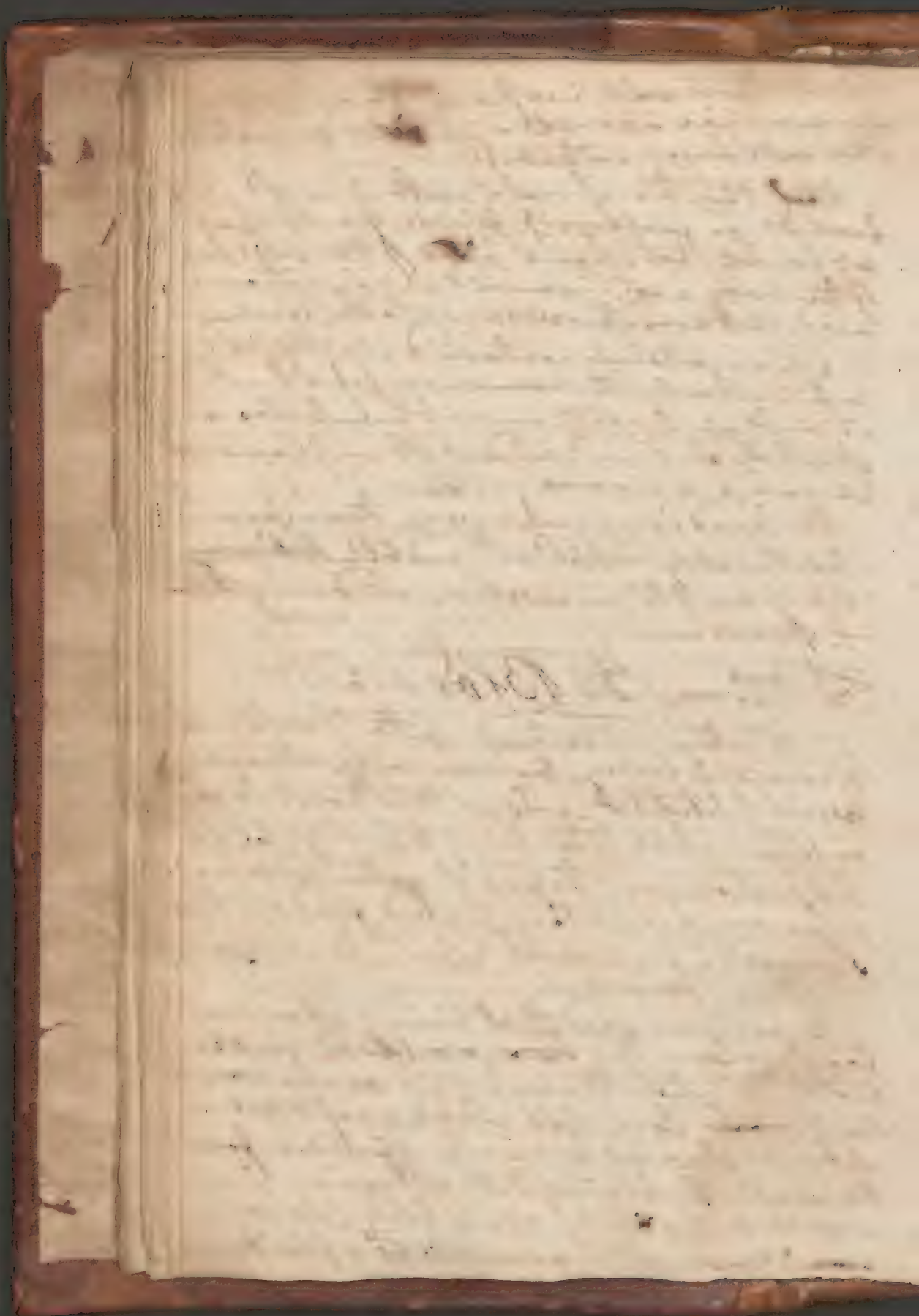
Oil is certainly contained in the blood
not only the common fat oil - but
is contained in yellow matter - but also an
essential one - which renders it inflammable
in some measure

The head is much more than pro-
portionably supplied with red blood. The
lips is sent to the muscles - and every little
to the bones -

Sept. 3. - The Blood cont.

Nature will keep up the strength &
of course if living, power, will certainly
resist putrefaction - and as this power is great
only, so will it tend to putrefaction in
its proportion - We find if gastric juice has
a power of correcting putrid food in the
stomach - for several experiments have proved
this (21)

It has been said that living when
food renders the blood more
liable to putrefaction - but this surely cannot
be of any consequence - for whole nations live
upon meat - and no such effects are found
in them - The life of the blood in
10, or 12 days every 3 or 4 hours is so
small a quantity of blood -



[illegible]

The coagulable lymph is thrown on
 when abscesses are formed & coagulated
 if has from running along if. all around
 the easily growth & changes fluid.
 Mr. C. mentions an instance of the
 dropsy of the ovarium - when tapping a cyst
 was full of fluid blood was seen. Mr.
 C. was very apprehensive for if safety of the
 patient. but she did very well - & this
 quantity of blood had been in many lost from
 if. blood & it was not certainly have
 proved fatal - but as had been there
 for some length of time, it had not
 had effect - When it then stagnated
 & lost its florid color and became
 black - as we see in if. lockia of women
 after delivery - After it is coagulated
 was so apt to break up - but why it should
 come & coagulate - & sometimes remain fluid when
 extravasated we know not - but there
 is probably some very good reason
 as to if. blood corroding if. bones. Mr. C.
 does not apprehend there is any such effect
 but that it is from the absorption - as it is an
 aneurism pressing on the vertebrae

(a) In attempt of record of people
suffered by drawing & we are tho. we are
were our attention ~~to~~ while there's any
neatness and if muscles are lay —

The state of J. bl^d in the dead body -

The bl^d in the sup^r of J. dead body is
supplied for a consid^l length of time
Mr. - gives an inst^l in a man that
was strang^d where it was fluid 12 hours
after death - This tendency to remain so
is probably a very fortunate one in
some cases - as in the inst^l of Dr. Brown's
people, who have rem^d an hour, or
more under water - for if it coag^d - one
suppose life could never be restored - We
are reason to think that if coag^d of the
bl^d - tak^g of bl^d very soon wh^l is true the
case / prevents J. recovery of und^g Dr. Brown
wrote - There is sufficient proof that
if bl^d does not coag^d aw^g the body at all
The best sign^l of J. liv^g is in the
liv^g entirely exhausted, is of the muscle
except when the person is killed by
lightning - electricity being perfectly
stiff - Till this is met bl^d we may
sup^r of same part of J. liv^g main
remains - (at)

The state of the Blood out of J. Body.

It will s^ract^l happen if J. blood
never coagulates - Mr. Quorson had a
remarkable instance of this kind, in a
woman who was bled in the Mid^l Hospital - In this case, J. red part sunk
to J. bottom like lead - but no coag^d
by any means was observed -
as a general rule does not in general
coag^d Dr. Hunter thought it was every

(a) Dr. Hunter had a case of a girl suffering from an imperforate ~~vagina~~, a large quantity of blood was collected in the vagina - When Dr. Hunter was informed cause and in & form of a thick mass - This must have remained there some months - as the tumor has been large for some time - and as the vagina could not contain it - quantity of blood discharged from the uterus, if the tumor had been absorbed - This blood was kept in a basin by the Dr. for several weeks - in which time, it did not coagulate.

(b) Dr. Forster observes that if blood is suffered to run over a large surface as just down the arm - & spread on a plate - it will coagulate much sooner - & not give off as much heat in its passage - otherwise would

to f. blood being changed by f. circumstances
of f. vessels — (at these are now in the
state of) — coag in f. vagina —

That f. blood & coag is owing to not
can not be allowed — for shaking the
bl. makes it coag. sooner —

Mr. Huxley to ascertain whether cold would
coag. of blood. made the following experiment
He tied a jugular vessel of a rabbit in two places
and cut off the part — He then fresh it in
m. ether ~~and put it in a jar~~ — I saw it during this
time it ~~did not coag.~~ but as soon as taken out
& placed in water it coagulated —

He found that it does not coag. sooner in
336 days of mat. than in f. greatest deg.

of cold — neither can it coag. be owing
to f. air — for if we receive it in water
it will still coag. & for inst. it be
received into a bladder where ~~it~~ can admit
no air still it will coag. — We

found it also coag. when thrown into
of water, or in f. vessels, very
soon — I am ~~afraid~~ pleasy Mr. C. also found

f. bl. coag. but the coag. lymph is
easier than f. serum, and thus
it coag. — and remains for some time
in f. form —

With as well as sea salt has been
supposed to prevent f. coag. of f. blood
and thus when ~~in f. form~~ there was
great heat in fevers, the practice, which
of f. coag. of f. bl. happens from heat, is
not to prevent it — but with dark
green to have this power —

(2) There is also a vapor arises at
first, which may be considered by itself.
This by Haller is call'd *J. halitus* —
Then fumes arises in *J. small* ves-
icles & a fat small, along wth this
vapor —

(6) The attractive between the
part of *J. cast.* lymph is sometimes
so great, as to require *J. weight* of
drachms to penetrate by its own force
force of gravity. when in a basin
somewhat so weak that drachms will
penetrate it & sink to the bottom —
w^{ch} depends upon *J. act.* of *J. a. times*.

It has indeed been said of a solution
of 2 drachms of nitre injected into a blood
vessel kill'd if an animal (a dog) then put
under a press or - but this probably
w^d have happen'd if any other subst
equally cold had been introduced - by prod^g
a considerable deg. of inactⁿ -

It has been conjectured that
of. will be the same as the other. For
they was? it and consequently render it

When blood is left at rest and of f. color
it is a sign of f. color - (H)
1.4 of f. color (H) is a sign of f. color - (H)
blood is left at rest and of f. color - (H)

The 2^d. The coal lymph - Dr. Hunter used
to say that as ^a certain coal lymph of. co-
ly. 2^d. he call'd it. coagulating lymph
but this is good common sense - The room
is very received - The cream mentioned
in proportion to it. serum has been said
to be very diff. by diff. Physicists Mr.
G. thinking it is left in I sh^d. than if serum
for that a good deal of serum coag. along
the of most of coal lymph (6)

The globules of ul. Th. also seen again. by
of visible microscope - for tho' of value
microscope has great magnifying power
it rays of light does not make bodies plain
to be seen

1a) Mr. J. Thirion of Hart. - on July 4th 1848
like a drop of red wine - which is when
in a quarry - is perfectly transparent, when divided
into drops, and they consist of a solid
containing a fluid - as a little vesicle with
water in

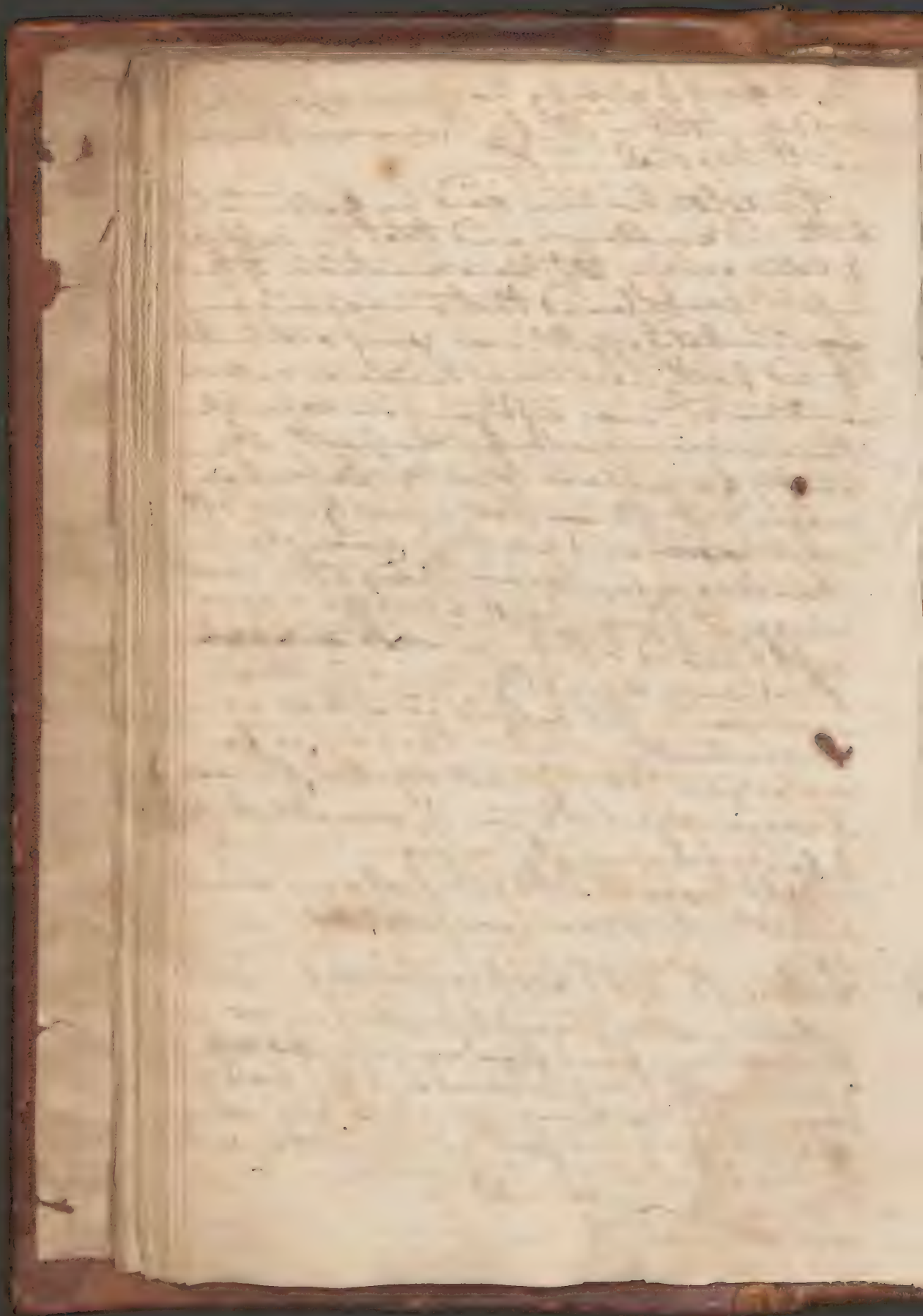
The shape of *J. globulus* has been represented
very differently - Mr. G. however thinks
it spherical -

The color has been said by Haller to be
both red & yellow - and that he supposed
J. tatter owing to *J. vacuolation* of the
capsels - for he found that one young one
of incubated egg that was going on well
of red part. were very numerous but
in another it was not going on so well
there were much fewer part. it was
chiefly of a yellow color (at Lwowhock
supposed it - these glob. were of very diff.
sizes, from and in this opinion
Boerhaave built his theory of the circula-
tion of. There must be layers some
well adapted to them - ~~Boerhaave~~
There are smaller ones in the
same air. That are so much so as
Lwowhock is. They are, as far
as we found by *J. microscop.* of nearly
the same size with or of smallest &
of largest animals -

Mr. G. does not think that any air
enters into their composition -

Lecture 4th - The Blood continued.

Haller calls *J. caag.* type of *J. cruas*
This part we find floating very fast
3 hours after being taken out of body
from in *J. spiritum* from which they are
changed of red part. it. The color will
be nearly enough to gravitate -



(I call it a calf lymph, as it is
 canceously; and as the serum does not
 I cannot be called calf lymph, as
 Haller has found it. The serum
 may be calf lymph, & that; and if
 it is then best in the blood, a great quantity
 of water may be present in it, which
 demonstrates how large a quantity of
 water is contained in the blood.)

It has the support of those who
 a man who would have a larger
 quantity of acid in their blood & do
 not hold. find this of course, for
 a person who has so much acid in
 his system it will be
 corrected & it will naturally stay
 by of itself in of moderate heat
 they never get into of blood
~~as it is not in a way to be~~
 this way —

This way —
The serum it has been concluded
might be ^{the same} ~~transp.~~ color from J. chyle; but in
fluid of same appear. in those who
having ~~and~~ constant vomiting can
not have taken any food for several
days — Wh. the serum should have
its peculiar appearance (somewhat like
milk or egg) we have not met
with. For's from absorption of fat
He made several exper. on the same
chyle, wh. he ~~found~~ found white, the
~~as good~~ perfectly transparent M. (—

The salt cont. The 1st cause for the
 combination of acids, either introduced into
 the constit. or formed there, with alkalies
 Earth - which are partly introd. & partly formed
 there. The salt in J. bl. acid. Soil
 ammoniac (compound of marine acid &
 vol. alk.) The marine acid is introd.
 & of alk. formed in the bl. 2^d Phosphoric
 ammoniac (comp. of the acid of phosphorus
 formed in J. constit. & vol. alk. 3^d secret
 of marine acid & volatile alk. both introd. & the
 separates in small quantity (fruct. acid & calc. with
 all these acids in small quantity 5th Thesis
 part of phosphur. acid, w. forming the J. calc. with the fix & ammon.
 & the name (the weight of phosphorus
 which, according to the contract of the
 experiment. of rep^l acid & the, to the
 blood (as) in them - W. 1 - is of
 the latter opinion; yet notwithstanding this
 found such Saturne given in the
 quantity of a grain, internally, &
 caused a rise in hemorrhages -

(4) of the motions of the animal which
 if artery was given & w. caused
 increase of impulses of J. blood -

Does not bleed, can be cut a. least 40
times, he imagines, when at rest, the blood
of oily part would be too strong to be
withd. (and is in such a state) and if
cause collected into masses

Dr. Farage is of opinion that if person
has a great tendency to phlegm which is
prevented by if. living principle and
that renders two persons talk in it come
into a bulge of it. In phlegm into a
commutative acid, volatile, calcareous, fatid
causes it

All if. salt contains in if. blood are
certainly not. and not arising from
there; but in that of the blood in the decaying
recombination. For there the living prin-
ciple is much exhausted as in phlegm fever
with. Alkali forms very fast in if. blood
impels - for speed. It is a good
green when applied to it. Perhaps the
phlegm is a very rich source of the too
all if. secret become of the fatid acid
if. it is cut off (a)

Physiology.

Dr. Hales found in an experiment
he made of the opening of the artery
of a horse, and introduced a glass tube, of if.
bl. mounted ~~up~~ of feet, and therefore could
to his calculation it within was in if.
a. Has 16 to 18 in. veins: Mr. L. does not know
think of it as a fair one; for as he observes
The current of blood in if. veins much
certainly be great deal quicker than
in if. veins for as at their entrance
from if. part of if. must be sent in
a greater number, course; the velocity

2. It is, that ^{the} Resurrection
occurs after death, it does in a ^{new} ^{life}
life

... must be in proportion —
The use of the red Particles has been
said to keep the vessels open; det. det.; for
if a large quantity is taken away at once
the patient will faint — An other idea
has been of it heat and project them
into water force sent them off. Their
shape being spherical enabled them to pass
thru' of minute vessels more easily
and smaller vessels than to admit globules
of their of heat (not two a breast) & so
appear pass. That if exhalants prevent
their passage by their minute size, and
suffer only if, filled with heat to pass —
It appears evident that if exhalants
and if red globules are necessary to the
body; for the fund that cartilages &c
have no red particles —

~~What took blood from the body~~
~~of the body~~
It is an Axiom that if blood of a sanguine
nature ^{does not} leave for the food this
for experiment Mr. Wharton thought
of the thyroid gland found it red and bled
Mr. C. is right that the lungs for the
function of it. and of course, it is continued
during life — and therefore fresh
contrary to Haller, that Nature can
form red globules out of sub. of a
and easily if they contain an oilage
Mr. C. does not believe in J. Linnæus
but that it is the exhalants who
separate the water of perspiration (a)
Haller supposes it heat cannot

(a) Walter mentions they are in a
great enclosure naturally found
in the bld. up and give a paper
to the S. of them that they are
found in great quantity in some
ancient. that have a great quantity
of ashore

with worth. Give that courage, you
contain. I hope the troops of
blood fluid

as air in the blood ^{is} Mr. L - 900.
and suppose there is ~~any~~ contained
uncombined wth it. w^{ch} Blood - and
that this is the cause of the Venous

That this is - thancaus
That there are salts in the fluids
Leyard & doubtless Mr. J. Thoms
They are not entirely strain'd out
nearly frozen in constⁿ. & partly
in the blood - D. I. B. not in

It has been said why sh. we not ing
med. into of. b. l. resp. that they might
act sooner & save of dis - as mercur
in of. ven. d. t. &c. The reason is very
obvious - for when applied in this
manner, they get a simple stimu
prop. & other violent effects -

Transfusion when it was first begun
was thought to produce a variety of good
effects in almost every complaint - but
was soon found that many in whom
attended it, as the son of J. and Guam.
a large & good plethoric young man
was in J. take & and the effect was
W. L. thinks it might be worth
while to try it in hemorrhages, when
J. Pat. was nearly exhausted, tho' it
was ^{times} tried. It would probably
in the hemorrh. continued, & so great
a good effect.

No. 8. *Corvus* —
The *Corvus*, when they thought of
black bile abandoned in *S. corvina* some-
times called *S. corvina* *attasabilis* — that

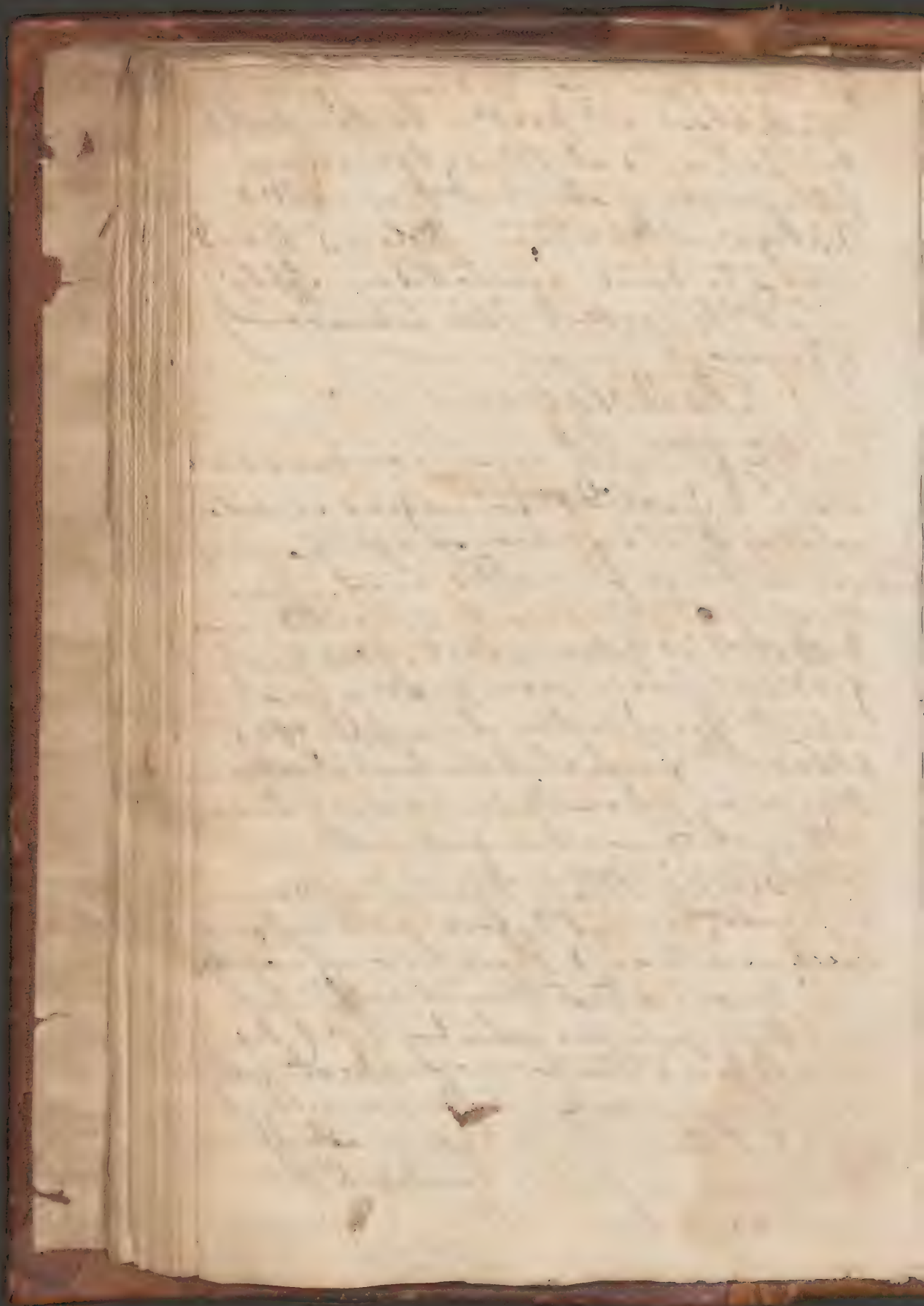
which is recognized
externally

at others there was too large a quantity
black blood - in the paddy & Indian-hol. it
is just and at others too much
phlegm, or water - w. they called
phlegmatic - this whole art of medicine
seems to have corrected in - Apply
med. to correct this redundancy
Phlegmatics

Pathology

The fluids may communicate
a dis. to the solids for we find in sailors
returning from a long voyage after having
lived some time on salted meat, when
the strength is nearly exhausted, and
putrefaction has taken place, that fresh
food has given more prod. a great
strength for it better by supplying the
blood with fresh chyle - but whether
this may act on the nerves, or the
the solids, we know not

Polypi M. - These seldom
are met with before death - Some
have mistaken them for lymphatic
vessels & that they're inflamed - but
true Polypi seen by M. - he
did not find the former opinion - but
did not examine whether or not, it
was of latter - A true mass of
a polypus is the soft cavities of the
arteries & veins & there is generally



also an intermitting pulse for the
heart has not power to push out
of blood. It would force - there
is often fainting &c. & some at
times in apoplexy. There is going
also pain about the praecordia and
disposition in the terms of J. D. A.
unless apoplexy.

The Bulk of blood is going pro-
prietor of nature of nature. It is a vein
It appears to be a strong action of the
the reason of which is that
that whenever there is to be new
solid form of action of blood is in
in order to produce a new quantity of solid
as in large abscesses where thickening of
of surrounding parts necessary in pregnant
women, where a new one is forming
&c.

In consumptive complaints, the
L. never hardly found blood, & as
as well, in the terms of J. D. A. of J.
cuff; but if in the same - perhaps a
thinner & a warmer climate, had
much better effect.

Lecture 5th of the Arteries.

We find in part of J. most minute
animals are muscular, at least a few
of them have been seen with J. microscope
that M. L. is for the purpose of
an animal cannot be found with
for in a higher the than it doubtful
whether there are vessels or not -
The blood vessels are very plainly seen

(of but an anatomiser of the capels
instead of a heart

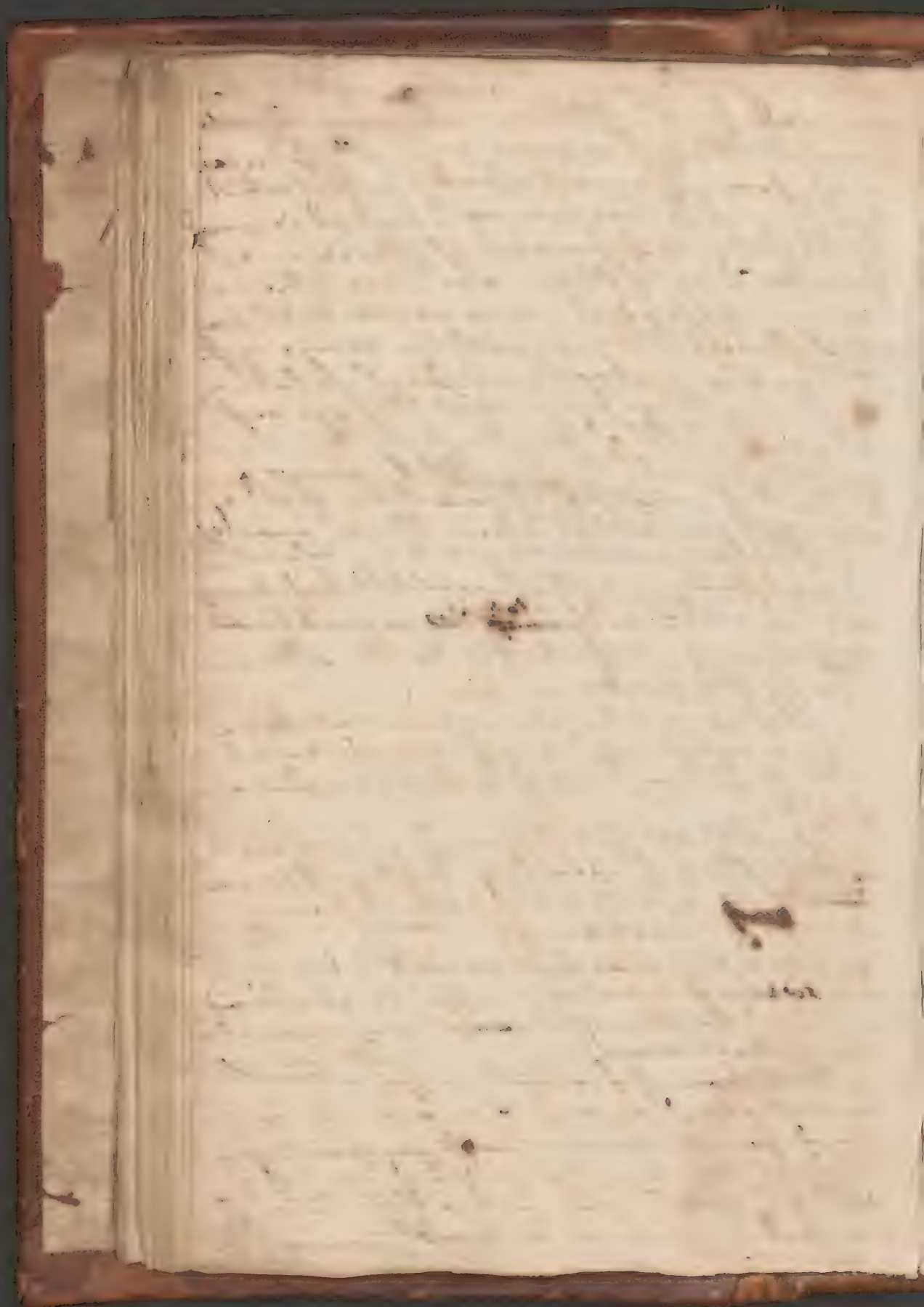
when injected, in of. aorta Mr. L. has
invented pump? of them — many minute
arteries Mr. L. has seen in the arteries
in of. form of small specks — which it
has been said has no use — but it is very
prob. Mr. L. is of opinion, of there are
for after one of these are: has taken in
a quantity of blood, it very soon discharges
that through. There must be some use.
it seems an absorbent? fact? to take
it up — It has been said that no use
is of it with of heart — but this is
certainly not true — Mr. L. shows a
preparation of a monstrous production of it
which was killed, where there was a
The large arteries are 2 in. in. — 1st
of pulmonary artery, 2nd can. bld. to of. lung
& 2nd of aorta, which carries some blood
to of. lung — but chiefly to the other
parts of of. body —

The large veins are 6 in. in. — The
vena cava sup. & inf. on of. right
side of of. heart — & 4 pulmonary veins on
of. left

Another set of vessels are of. absorbent
and another of. venous ducts — There
are 2 of. and then set — which carry
in of. of. trachea &c —

The artery was just so call'd by
L. as it is from within supplied containing
air — as he thought ~~and~~ commenced
by of. trachea

The action of of. vessel is of. utmost
consequence in of. animal machine as
in of. form. of new parts — repair of
injuries &c — It is in of. of. of. of. of.
of. of. of. of. of. of. of. of. of. of. of.
no farther will be said of consequence,



don't do all performing its functions,
no blood c? be born to and of. and I must
must be cut off

In skate & cod &c. if circ. is carried on
in of same manner as in of. ailer
for there is only 1 vessel of each on the
left side as in the human heart - but
of blood after being car? (and of blood as
back to of. lungs, returns to of. aorta, & the
arteries from of. pulmonary artery - and of
thus of blood is sent all over of. body.

In of. leg of body of. art. are disting? by
their ends - in the dead of - their spacity
and both in of. dead & living by their
elasticity -

In the course of of. arteries, Nature
has very wisely ~~placed~~ care to situate
the largest & most import. art. in
of. safest situations after guarding
accidents - as we see in the aorta (which
is def. by of. spine) & all the other
principal art. - They are always
placed on of. inside of joints (as if
protected) for had they been on the
contrary side, bending those joints,
would have extended them & compress
in so much as to entirely impede
of. circulation

Capillaries are those minute
vessels w^h do not carry red particles,
but serum & coag? lymph - Many
of them are extremely small - no less
than 1/1000 more so than a hair of
of. man. The use of this place in
the thyroid gland, is, we don't know

it is red more

(a) J. astra is J. bavis —

(a) in both which J. bavis may be
seen running in different directions

but it seems as if the latter were of
great importance; for this is a small gland
~~which~~ it has 2 large sites. Perhaps as
large in circumference as one of the
larger sir'd glands —

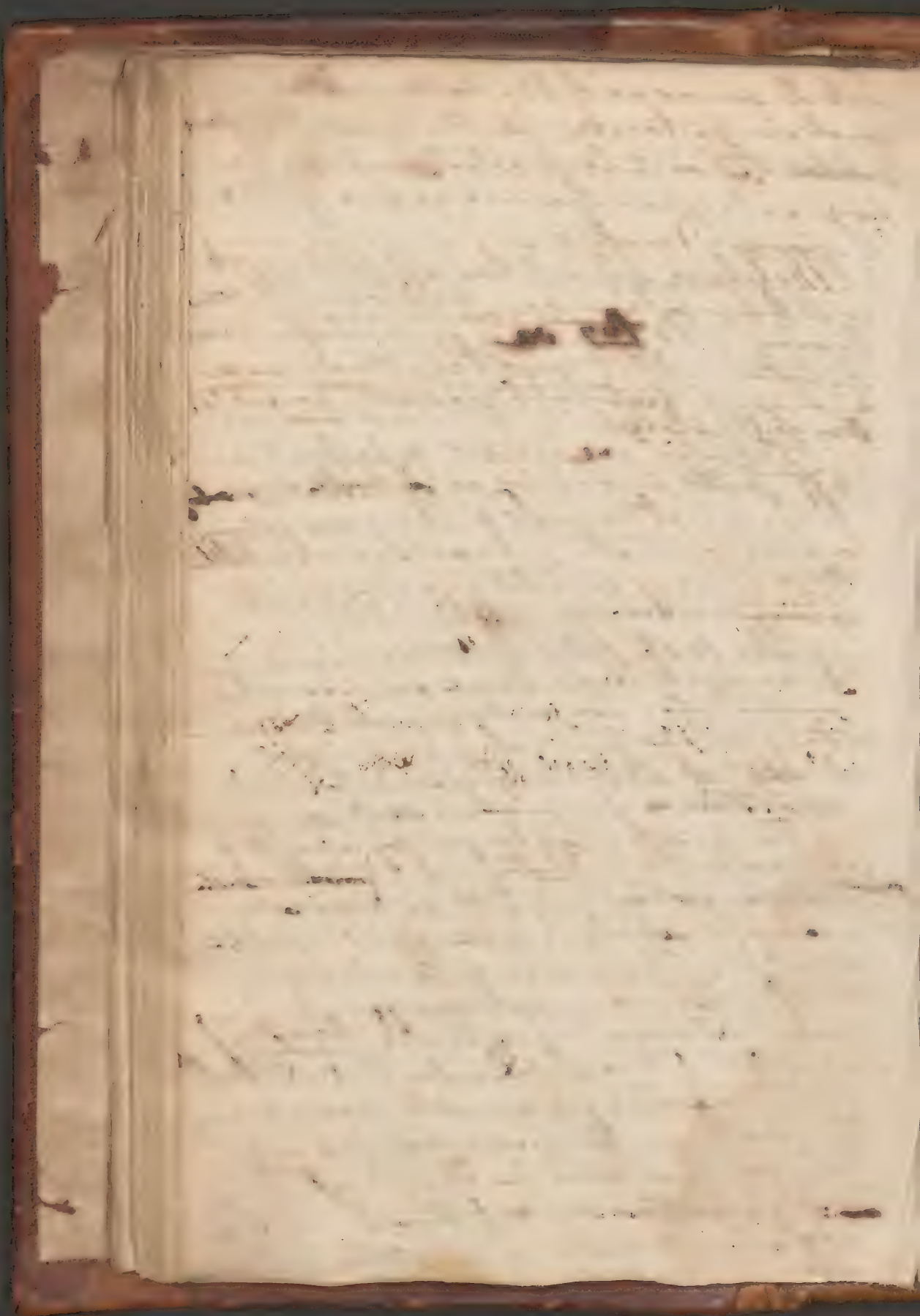
The figure of it. art. has afforded much
cont'd. being among Anatomists, some
having said ~~that~~ it was a shape some
have then — W. L. says the arteries are
a congeries of cylindrical, gradually, increased for
they begin of great

The artery. only in art. & perhaps in
diff. part according as it is ~~to be~~
of. secret. required — They are of many
numerous in of brain — but whether
there is any secretion, or not in it
of ventricles, can not be said —

The coats of the arteries were by
J. A. ancient more than we now
assume for we only count three —
but they make five — as of periton. coat
of. ~~adipose~~ of. adipose — of. glandular — of.
~~muscular~~ ~~of. muscular~~ of. muscular ~~of. muscular~~

The 3 coats may be easily separated
from each other of. ~~artery~~ of. ~~artery~~ ~~of. artery~~
of. ~~artery~~ ~~of. artery~~ and of. 3. or ~~artery~~ ~~of. artery~~
arteriosa — which is a very fine membrane
in which no fibres can be perceived —

Bartholin mentions for having
seen valves in of. ~~arteries~~ ~~of. arteries~~ ~~of. arteries~~
one in of. brachial artery — but W. L.
imagines he must have been
mistaken — He never saw any
himself — nor does he think of. They
exist any instance of. of. ~~artery~~ ~~of. artery~~ ~~of. artery~~
of. ~~artery~~ ~~of. artery~~ ~~of. artery~~ — and the pulmonary



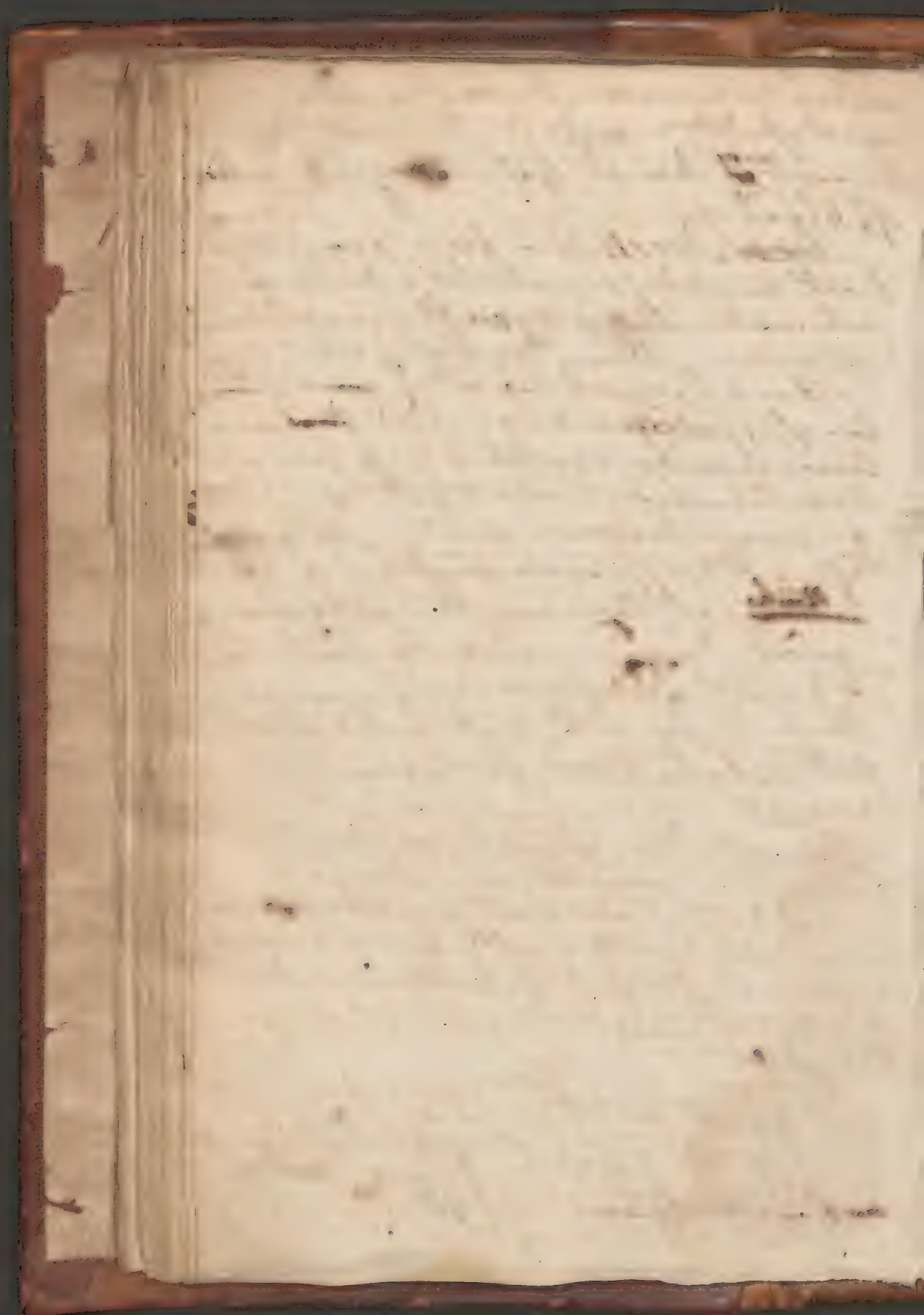
any 3 librarians - Where it is, place
more openly & deeply in the heart, to
prevent ^{any} chance of retrograde action
of blood -

~~The~~ Nervous system & its connection
of art. making sometimes a kind of
net-work, especially in the medullary
artery. Many say that if art. have
no kind of communication with the nerves,
for if ~~a large~~ artery is tied, that no
brain issues, except a large mass
be included in the ligature. Mr.
Lacaze says there are many strong arguments
against this opinion but yet is of
~~this mind~~ - if there are others still stronger
against it, no successful parts can
act without influence of nerves etc.
The penis for inst. is almost instantly
extinguished by blood for ideas of
mind.

Sept. 6th The Artouis continued.

Whether the facts of art. were muscular
or not has been a matter of great contest
among Physiologists — Haller thought
they were not muscular; but later and
stronger arguments

There are only fibres in two outer
coat of G.I.V. but these fibres may not
be muscular - for I absorb & induce
every thing that has power ~~of~~
~~of~~ ~~activity~~ have these fibres running
in their substance



(2) In many infirmities, where the
~~arteries~~ are contracted at first, we
may judge that a fit is coming
on by finding that the pulse is beginning
to grow hard & contracted



d

on contact of art. according to it, make
of blood, till they become perhaps 1/4
or 5 times up in diameter — (a) In
short M. I. thinks of. The art. are well
muscular for it. Strong arguments not
given —

The art. are not only strengthened by
of part surrounding in — but likewise
receive a diff. coat from — as for inst
of aorta receives a reflection of the pericardium
for external coat — same. They
are surrounded with a tunic. as the
as the crural artery is surrounded
by a very strong fascia — which denotes
in its strength & thickness, where the
artery gets lower to it, here, and
taking of name of popliteal —

The appearance of the art. may
be called arborescent, as their ramifica-
tions are very much like of stalk of a
leaf — When indeed they are injected
they are in their very small
branches, we are lost as it were in
their minuteness, their net of ram.
is so very great — The art. are villous
or have a little in patches, the hairs in
those parts where are endowed with very
great sensation as in of intestines
of lips ends of fingers &c — The
extreme art. in some parts of
as in of stomach — colon &c — and may
be very well seen by the microscope
The angles of arteries — D. Hunter

14 as the secondary artery

16 They are also very much increased
in *J. grandis*, probably for the
same reason.

17 and likewise in *J. corp.* cancer
of *J. nipples* placenta &c - for there have
them, as well as of *J. mammae*, or at least
for the nipples are com^d of milk as well
as of blood.

said of. & if out came that acute
angles and if there is the with them
as a right, or obtuse angle but if
I contend there are some w^h are
as if superior intercostal and several
others

The convolutions of the arteries - The
arteries of the brain & the
convolutions on the surface of the
of cerebral artery & the still it is to
is other. If this had not been the
case, the blood must have projected
with too great force to the brain, and
have occasioned apoplexy much more
frequent - In those animals who hang
their heads down to feed, or cows &c.
these convolutions are much more
numerous in the head, than in the
human ~~arteries~~ creature, and
forms what is called rete mirabile

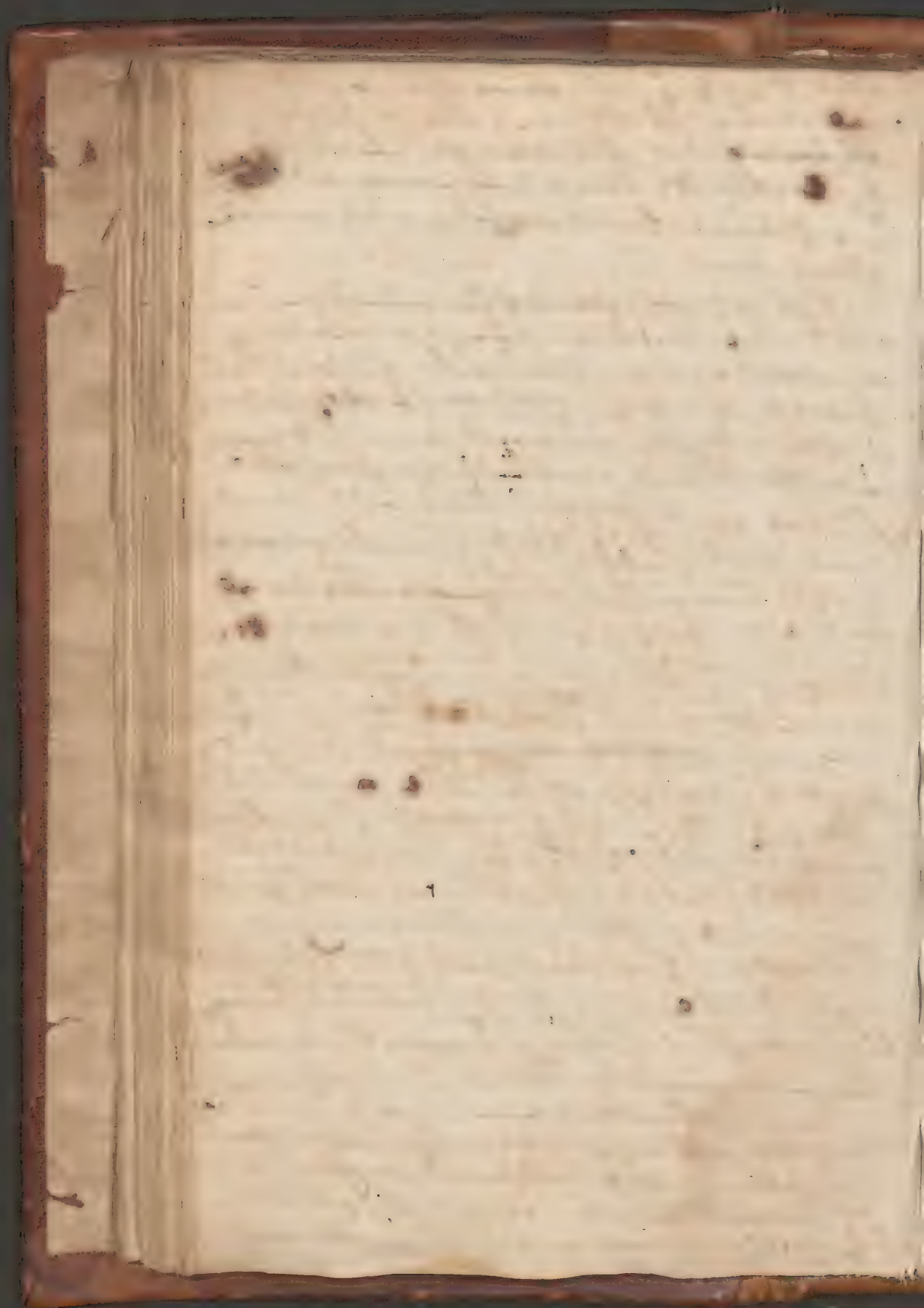
There is this kind of convolution in the
funis umbilicalis. I suspect probably
the blood's coming with too great force
either from the placenta, or black state

The art. in the distant parts of the body
as in the legs are not convoluted, perhaps
because of impetus of the arterial is not
there so great, as near the heart

In the corpora cavernosa of the penis
these convol. are extremely numerous

These are called Arteries of the Penis

The art. terminating in the (both
of small and large arteries) in anastomosis



The anatom. of art. are evidently
to present of. incl. ^{ing} stopped when
an artery was, stretched, for when this
is the case, it may be carried on by
of collateral branches

Malpighi had an idea that of art. ^{to}
turn in parenchyma or spongy
substance. - but it is prov'd otherwise
by modern anatomists; for if it had
been so, it must have been perceptible
in those inject. w^h are now made, & the
of blood in just ^{inj.} of finest vessels

Sept. 7th The Arteries continued.

The turning of art. in anatomis
may be seen by of naked eye - and also
in cells, ~~and~~ ^{and} in of red veins one cannot
with of addition of glass - but of microscope
we see the turning of art. in red veins -
w^h are of 3 kinds - 1st ~~reflected~~ curved
2^d acute angles & cross canals -

We find of. in ^{very} those minute
vessels w^h naturally ^{very} red art., are
so dilated, that their art. may easily be
seen in ⁱⁿ

The lymph. art. have their correspond
veins, as we find in of tunica conjunctiva
there is another termination of of art. of
symptomatic - for very near to them there
become extremely visible for either infra
or supra the same

Nov. 1st after injecting from of art. w^h red
injection, I asked of the artist what color
of of art. but w^h art. any of red color
the artist inject. it - it must have

1a/ This is very interesting. This as a kind
of substitute for *g. catameneia*, as
~~for lagers~~
~~the~~ for ~~the~~ when pain is of
back &c - and at the time these
catam. used to come on

happ'd that every time we go to the
narrow of it, all that is left to pass —

Another horn? of art. is in relation to
transudation certainly does not take
place in of human body — If for inst^t
a respiration is raised on of skin, of matter
if not absorb'd will remain several days
with of least transudation — If of feet were
to transude, there is no reason why it
sh^d go on of inst^t of as if. in inst^t. perhaps
does, for it is of constant & uniform
motion. There be any influence capable
of either increasing or diminishing quantity
Another strong argument in that of anatomy
(as) are of transudation to of different parts of
of body, as of lips, ends of fingers &c &c
and if the blood can be thus brought
to of surface of of body, we cannot possibly
conceive such a thing as transudation
to exist.

Another thing to be noted of cells of
cyanophatic glands — This fluid is thought
probably secreted in of these cells, mixed
with of chyle, & mixed with blood —

The Motion of the Arteries.

Amongst the Ancients of art. were called
beating veins; for they had no idea of art.
The want of of pulsation in of art. & the
irregularity of it, in different people may
depend on a variety of causes — There
are inst^s recorded of people living 4 months
before their death, without any perceptible
pulsation in of arteries — (M. L.)
primarily had an inst^t of this kind in
a patient, who had a considerable quantity of
water in of chest, where the pulsation

(a) and their contents also

(b) & partly from of. connective tissue
of arteries

(c) Nature has therefore taken care
to place the most material organs
in the most kind of places, where
they are of most secure from
injury - In of. find she has set
them on each side, that they may not
be compressed as they move in the body
and thus work and then was on of one

The felt in any of the arteries for 30
days, owing most probably to the
loss of the water

The aorta of the most diminutive of diameter
of the artery & of the peristole vice versa

Sept. 8th The Arteries continued

The arterial is most probably caused by
the strength of the repeated pulsations. It is
as for instance when the left ventricle has
contracted and and it is of the quantity of blood
it contains of the most extreme part of
the heart, another contraction immediately
and sends of blood that is forced back to
the forward; for the one contraction
of the ventricle sends it in the same
moment of the most distance parts,
yet we find the in the arteries of blood becomes
in the larger distance, it is too much
exhausted by the time it gets to the fingers,
of the fingers, & to pulsate, for we cannot
find any pulsation in the ends of the
fingers, except when the action of the
heart is vigorous

The pressure of the superincumbent
heart and considerable resistance (as well
as other angles) to the force of the blood is
indign (c)

The pulse is a most useful
thing in diseases. A Physician is
attends to the hardness, or softness of the
pulse - its number - frequency and

~~W. D. O'Connell is gone for the month~~
~~and will be back in the day~~

me as his pangloss accordingly

In a ^{new-born} state, the milk will
 support 120 grains - for the younger
 animals also, so much more irritate
 and muscular powers - and
 the no. keeps decreasing till the
 adult state

Warmer for if some reason hang
giving their pulse ~~quicker~~ than men
as 60 for inst. — In some the
pulse is materially very fast — as
even 120 — and vice versa for it
may ^{be} said to be constant in some, who
were perfectly healthy, only 40, or even
several beats below that — In the morning
as soon as we get up, we ~~usually~~ find
if pulse 60, or less — but ~~soon~~ ^{after} food
has been taken, it increases in quickness
so that by night, it is ten beats more.
If I am doing little food is taken
and the mind is employ'd if fast
will be count'd. ~~increased~~ ~~fast~~

In Cahoon's case, J. pulse is gen^y considered in a very low state in apoplexy it is much less so, as fifty gen^y fast

Electricity makes y^e blood circulate
quicker also. but this is probly geny.
wth I. fear — Mercury has this effect.
It may be done in 2 ways. In 1st
mercury acts as a stimulant but
when it has been given sometimes
sore throats & colds. It acts by prody.
great irritability of skin & ~~the~~

(a) in rectic fever

Mr. White son of Mr. White, now
Dr. J. B. White, has an internally
valve and the if when he
had a job at Danbury. Fuller
can with best regular at a
new he is right

hard. if same and fine weather
& climates; on Juss when absorbed (a)
Some read. think it is not of Juss
absorbed, but of. with prod. by & wife
and of. it will happen of same in-
tensions (wh. acc. Juss) that do not supplant
Dr. Hunter and Juss to forget to wind
up his watch - and coming in
with record of pulse by it. The things
tell ^{up to a} way of doing it by if. repetition
of numbers of diff. syllables, accord.
to J. Juss - as 1, 2, &c. or 21, 22 &c.

The pulse is measured by
multiplying if. of beats by 4. if a 1/4
portion of a quarter of a ^{minute} second, for
in that manner, it will be
general in quickening pulse. Then when
meas. by a whole ^{minute} ~~second~~ it
In gen. we find that hypochondiac
people have slow pulses - and in

if. strong diseases -
same it is constantly in trouble
in this pulse though it regularly
accomplish in Dr. it is very danger-
ous. (6)
The doctor is said by Solanus to
be ignorant of the pulse. It is when ~~it is~~
coming together quickly ~~in the third stage~~
a dilated one with some ~~some~~ ~~some~~
with each other -
The doctor is in the same

[Faint, mostly illegible handwritten text, possibly bleed-through from the reverse side.]

(at as none is ever. It is not out
there, it is kept either by ~~some~~ an
at talent, or a suspected ~~action~~ —



Arteries have
~~power~~ ^{power} of contraction & power of elongation
very easily and are frequently
in situation, & spasm out like a
tree, as in *g. gravid uterus* — They
have also a power of enlarging them-
selves much or in tumours, & — and
of returning to their original size —
They're also a power of splitting
themselves, and being converted into
ligaments — as we constantly find, as
in *g. ductus arteriosus* and umbilical
cord —

There can be nothing certainly
more true than of attraction &
repulsion of blood, for one
may not only bring blood to a part
by arteries (as in *ductus arteriosus*) but one
may ^{also} ~~be~~ repelled by sedatives, as in
inflammation —

The art. may be rupt. with. any
accid. in heart, *g. g. lungs* —
This case, when *g. blood* is rupt. & out
of *g. solaria*, one may cure it in
arterial blood, ~~as in the case of~~
~~thrombus and any other~~ (a)

Lecture 4th of the Veins.

The Ancients not only thought of
means of more in part than *g. art.* but
suppl. it more in origin, for them

The means are important *g. g. art.* for
gen. reciv. the blood & carry it back
to *g. heart* — This defin. will hold good
in general but not always —

Sept 11th 1844

My dear Mr. Smith

I have just received your letter of the 10th inst. in relation to the matter of the 1st of the month. I have been thinking of you very much lately, and I am sure that you are very much interested in the matter. I have been thinking of you very much lately, and I am sure that you are very much interested in the matter.



(at the suggestion of a friend this may be very well seen in a microscope when the nerve can be kept in a



(1)



The sept. of veins in some parts, is
predominant of pt. mischief - as for instance
of sept. of veins in the cavity of the thorax,
or abdomen, has been known to make
of sept. of pt. almost invincible.

The veins may grow in different
of living body by being not supplied - and
by the blood being sent to them in a
that I shall see in the ligature.

In the dead body they are discov^d by
being nearly full of blood while of art
are quite empty - by their elasticity
very little - by their valves - by the
retention of their coats - by their large
size in the state of art &c.

The 1st origin of a vein is from a red
artery - The part of this is by of microscope
the 2^d from lymphatics - The 3^d from
veins themselves - & from sinuses
& the 4th from other kinds of arteries, such as the
~~arteries~~ sponge of the brain.

In the cavity of the heart, there are little
orifices which are common to the coronary
arteries for the latter may be inflated from out.

Hippoc. Galen and most of the ancients
believed that there were pores giving rise
of surface of the skin - caused on absorption
and imbibed of humidity of the surrounding
atmosphere.

Transudation certainly takes place
in dead bodies - for the fibres of the vessels
being very much relaxed of fluid is allowed
to pass thro' their interstices.

The coronal. of the heart grows rather

See especially in the turtle.

Detain of blood for secretion or prevent
it coming too forcibly on delicate parts
but cannot be these reasons (especially
in a person)

The veins are small as with grey
run in a radiated manner
Some when the art. are convoluted
if veins are small but form a reticulate
or star like appearance. The art. in the
kidneys are often convoluted so as to form
crypts while the veins become a radiated
appearance.

The distention of veins after for a
certain distance freely makes the
course of veins have a very irregular
appearance.

The veins have 3 coats - Waller
thought that none of them were muscular
or capable of being stimulated but Libby
may be seen to the contrary. The direction of
veins is beyond a doubt. The sinuses of
the dura mater are also elastic so that
in sneezing coughing &c. of blood is not
driven against the brain itself.

The strength of veins has been said
to be as 99 to 510. In Clifton Wm. Kingham
found that in veins to 154 in of art.
It is nearly of same in proportion.

McC. thought of veins muscular as well
of arteries. that there is a vis inertiae which
makes in contact & adapt themselves
to quantity of blood contents and if this principle
of life will accept this contact in the body
the organs will be kept in a state of health
as long as it will be in the body

12 They are certainly cahl. of the same
calculation

161 but if they are proper mem. of
subst. totally different

17 The values are placed in the
same — in the same for instance
they are in the same in the same
while in the same in the same
and in the same in the same
of the same in the same
in the same in the same — brain — a
place

18 17.6 } According to the
158 } same
118 }

19 17.6
158
118

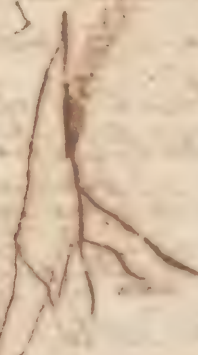
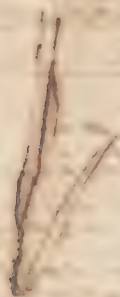
The veins seem to ~~appear~~ ^{increase} similarly when infected. The veins have their real ^{or} ~~real~~ ^{or} ~~reason~~ ^{as well as the arteries}.

The valves of veins are ~~found~~
a grand distinction between veins &
arteries — The tunica araneosa, or inter-
coat of the veins, has been said to make the
valves by ~~the~~ ^{the} reflexion — but W. J. does
not think so. The superior of them
of J. valves are call'd J. horns, and are
situated in such a manner as to prevent
the return of the blood to the heart —
But the valves are in pairs, double
yet they are in four parts, (as the
finger) single, and answer the intention
in those parts, equally as well as if
they were double —

Lecture 10th - The Veins continued.

There are 3 parts of the species - 1st. the
fund. red arteries 12 - those in symph-
ysis - 3 - 2nd. those in absorbent
arteries -

When thought by some of the negroes
 on the shore of a man, absorbed ^{who} ~~and~~
 attempted to prove it by several others.
 He found that after a signature had been
 made on the paper in a bag, that
 paper was found and put in a bag of
 his. He was well satisfied that
 he was not imagining it. It was saying
 to him, by the way, that he was not
 a regular and he had along with him
 an ^{other} ~~other~~ of it by the way.



(a) *Three lines* —

(b) *Mr. C. expected a lady in w^h he found
3 or 4 inches of *S. runa* cane in. ^{totally}
obliterated, and yet the circle ^{had}
been cut on by *S. anatum*? —*

of lymph be escap'd out of cavity of the great
arteries & the hydrocephalus - as Mr
Hewson in the same report never
found it to happen, and he has laid
off vein here before he made a dissection
We can pass the inhalant arteries -
but that of veins having no where except
at their origin in the heart any open
mouths -

The number of veins is probably at
least ~~about~~ that of arteries -

The arrangement is much the same as
of the art. - ~~but~~ similarity of ~~arrangement~~
anatomy. of art. is so just, if all art.
in the body except of pulmonary may be
rejected from one artery, yet that of veins
is considerably greater - 1/4 -

The term *venae cavae* are 6 - 1st - 2nd -
cava superior ~~inferior~~ ^{inferior} in the right
auricle - 2nd *vena inferior* ~~inferior~~ ^{inferior} and 4th
pulmonary ~~venae~~ ^{venae} and of unknown
of vena portarum -

The reason of arterial blood loses its
vitalization in the capillaries, in that it is imperfectly
of heart is so considerable & diminishes
of it has not strength enough remain.
As though things were it must be still
more diminished when the blood gets to the
veins; so that probably its motion is
near 3 times slower in veins than
arteries - The column of blood in the
cava inferior ascends against gravity
lighter than water for its origin of the aorta, it
is accord. to the laws of hydrostatics (supposes
there is no resistance in motion against
it to prevent it - for fluids are equally in
equilibrium - In the cava superior of blood

9) According to Hales, the veins
are much stronger than the
arteries. & require less consid. of
force to rupture them. In this
experiment

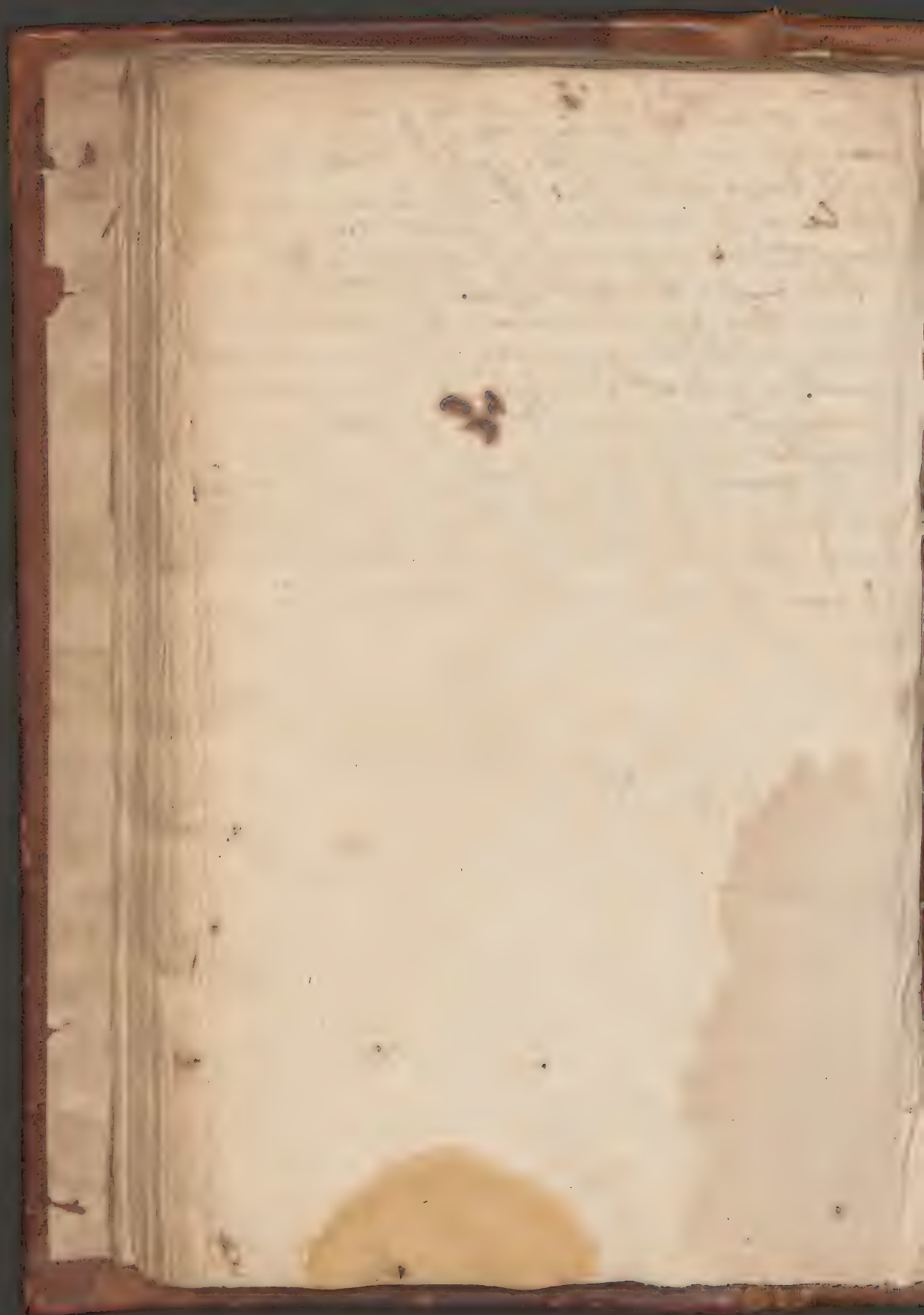
The narrow aneurism ^{in 4. arm of the} ~~was~~ ^{greatly}
is known by it. enlargement of it
when it is pulsed. of it. artery under

position is fixed. chiefly by its gravity
It lies on the right of the heart of the
inferior vena cava is still greater than that
of the superior - This doubt is very doubtful
if it be so, it must be propelled by some
very strong muscular process.

When anatomists speak of the beating of
veins, they do not mean of common
veins, but of larger ones - There is certainly
sometimes a pulsation to be felt in the jugular
veins, & corresponds to the pulsation of the
aorta.

The veins in the pulsation may be owing
not only to the impetus of the blood received
from the heart but too small - but also
to the contraction of smaller tubes in larger
ones.

Side No 2



Lectures
on
Anatomy—

By W. Cruikshank,
&
D^r Baillie. —

N^o 2. —

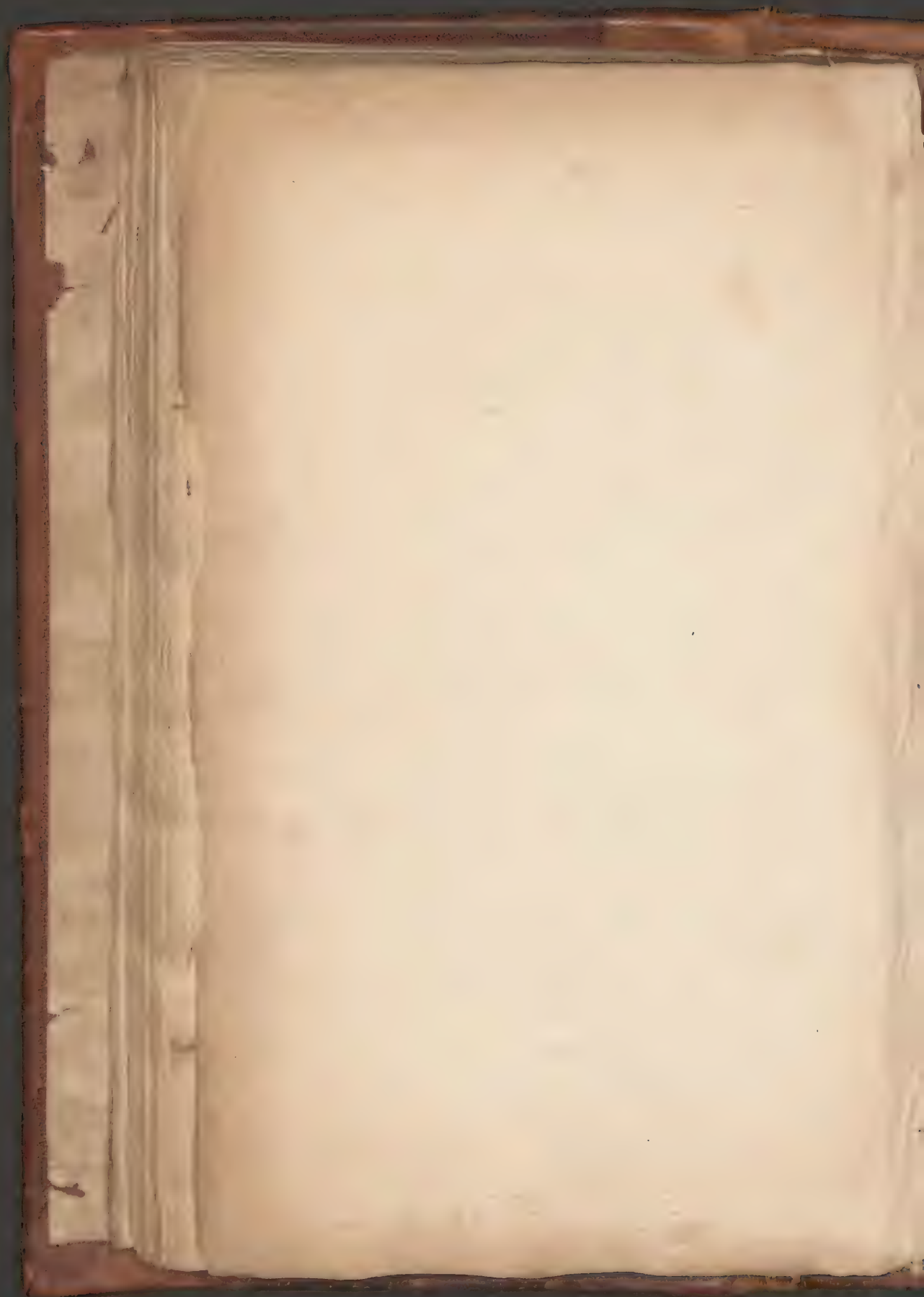
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Notes of Mr. H. H. H. H.

It is somewhat remarkable, if
in 2000 years, only two ~~remark~~
discoveries have been made
in anatomy — the circulation, and
of absorption — and those within the
last hundred years —

The structure of bile seems to be
to stimulate of intestines as a body
on ~~partially~~ with surface. Then I
find that motion. Mr. H. H. H. H.
It is not absorbed into the blood
only diffused thro' it, and separated in
the intestines & excreted —

The chyle is a white globular fluid
capable of coagulating. In the mouth it
coagulates out of the mouth, & is
in such habits, is much longer
coagulated —

The absorption of chyle goes on only
at certain periods, & cannot be
guaranteed to be taken up at other times
at all — This, several experiments
have proved to Mr. H. H. H. H. —

Absorption is a process of
the body of drinking water, &
and some of the particles of
solids — These plants are evidenced
of some particles — for in experiment
if have been made on them a color
has been found to circulate thro'
the part —

The ancient were ~~not~~ acquainted
with the circulation of the blood

1st General experiment some words
That of abstraction & disposition of —
abstracted happiness & of unhappy
of body —

of body - for they find applica-
tions sometimes do it. This man
at Mr. J. Thaxter, it very doubtful whether
of absorbents take down solids, and
absorb em, with the ^{help} being converted
into a fluid. He rather imagines
that of latter must be ^{care} for
when say he, may not of arteries
have a power of secreting a fluid like
of gastric juice, capl of ^{arteries} ~~arteries~~ ^{capillaries} ~~capillaries~~ ^{arteries}
be one that is of fluids

I begin to think of translation
happened in living body & perhaps
Neckal in of the same period

This piece is now almost totally
overthrown by evidence. The failure
of no translation can be made
in of living body —

No part of Y. abrotanifolia system
was understood. Y. abrotanifolia had
been discovered there ~~in~~ 1562.

Eustachius was certainly the first who understood any thing of the absorbed system.

A.elliger was of quartz, who perfectly
discovered *J. lacteals* in 1622 — *A. R.*
called her a *lacte* — Some time after
the discovery of *lacte* *phat* was
found out by *W. J. J.* — *A. R.*
thought to carry the same fluid as
J. lacteals —

14 I am injecting lymphatic vessels
when I inject either in obstructed
valves, or the Venous system, and
severely in the case of aneurysm, but
this of them, and not only
ruptures of vessels, but vessels
themselves. I suppose may also
be used when there is oblique
absorption glands are

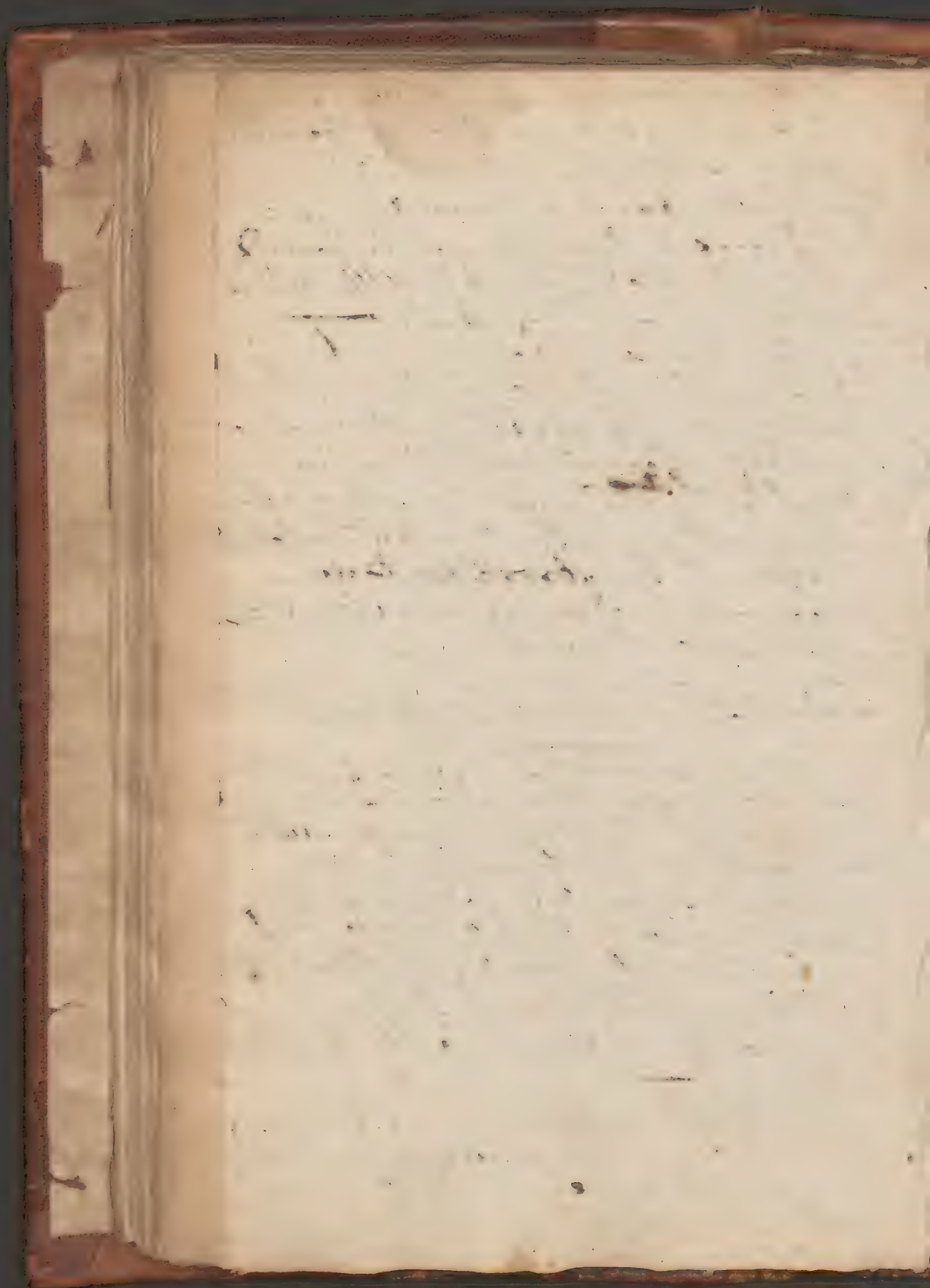
The lymphatics are very numerous
in the dead bodies, especially in the
lungs and the intestines. They are
lymphatic glands & through them
the lymph is carried. They are easily found
by the external touch, & the blood
of a man is very much - & is
quickly taken up by the
injection. It is also seen in the
great part of the body, & is
easily found. It is never
difficult to find the lymphatics in the
lungs & the intestines, & in the
liver & the spleen. The lymphatics
are very numerous in the
lungs & the intestines, & in the
liver & the spleen.

Lecture 2nd The Absorbents consist

The lymphatics are easily found
in the dead bodies, especially in the
lungs and the intestines. They are
lymphatic glands & through them
the lymph is carried. They are easily found
by the external touch, & the blood
of a man is very much - & is
quickly taken up by the
injection. It is also seen in the
great part of the body, & is
easily found. It is never
difficult to find the lymphatics in the
lungs & the intestines, & in the
liver & the spleen.

As to the origin of the absorbents, they
are very numerous in the
lungs & the intestines, & in the
liver & the spleen. The lymphatics
are very numerous in the
lungs & the intestines, & in the
liver & the spleen.

The lymphatics certainly arise from the
liver & the spleen. Another origin of the
absorbents is the lymphatics, in the
lungs & the intestines, & in the
liver & the spleen. The lymphatics
are very numerous in the
lungs & the intestines, & in the
liver & the spleen.



In *q. testicularis* they are numerous

The horns, have undoubtedly thin absorbents - for it has been shown by experiment

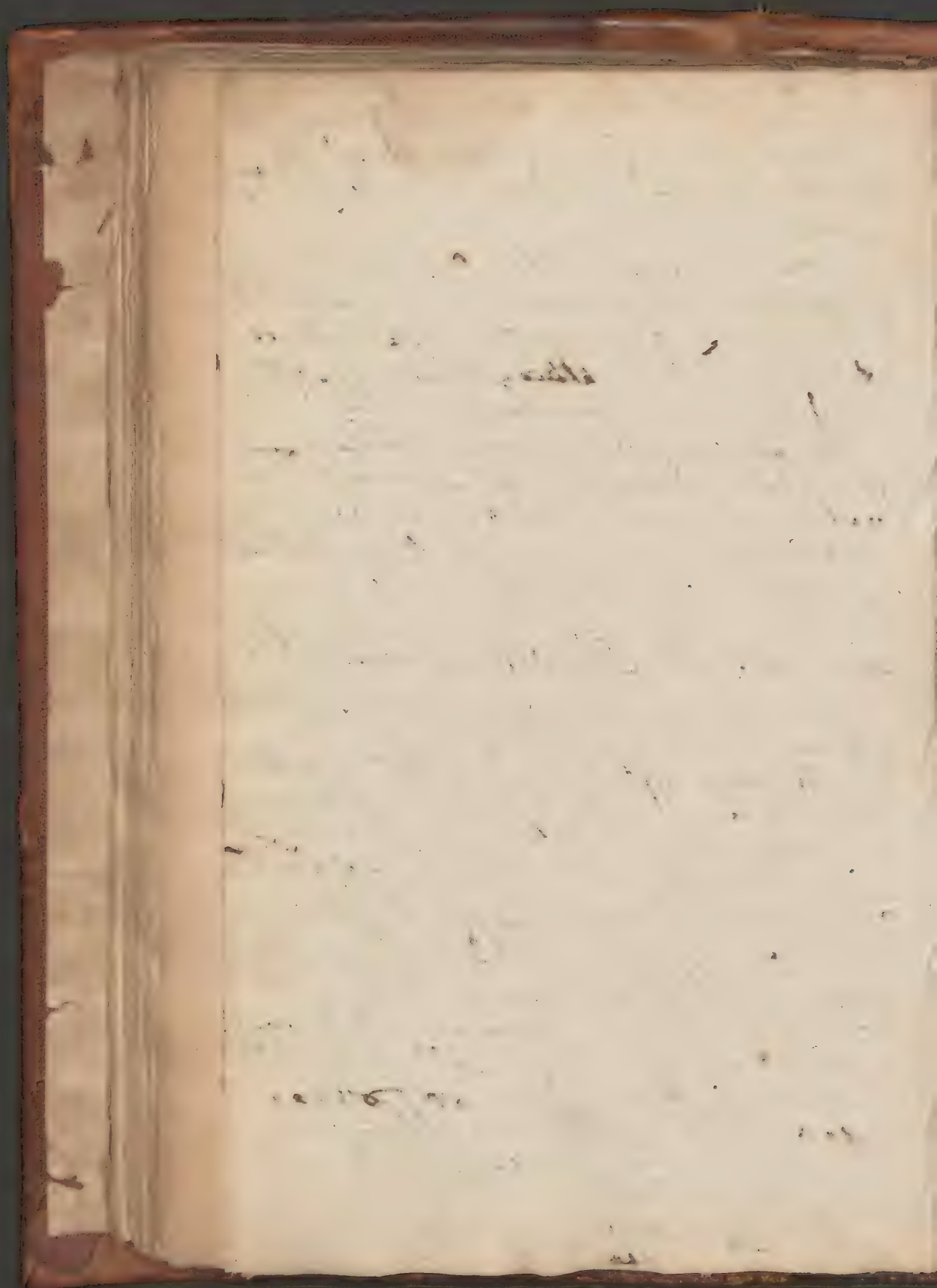
When a lymphatic comes out of a gland, it comes in a radiated manner for a *q. testicularis* - and forms a ~~branch~~ *branch*, exactly in the same manner

The absorbents first run solitary, and if no branches for a long way - The vessels also are placed very irregularly to distance - Some *q. testicularis* they put on the appearance of red-work

Lecture 13th The Absorbents continued

The nerves of *q. lymphaticus* do not appear to be much affected by the disease - do not seem affected by *q. testicularis* - for the *q. testicularis* themselves are extremely irritable, contract, & remain on a *q. testicularis* but appear The lactals absorbents depend on the brain for in some cases *q. testicularis* made the found, if after *q. testicularis* action had been tied (in which are all *q. testicularis* & nerves going to *q. lymphaticus* / *q. testicularis* carried on Absorption, ~~of the~~ *of the* ~~of the~~ still - They are much more delicate texture in *q. testicularis* than the *q. testicularis*

The *q. testicularis* are very different to the *q. testicularis* & seems almost identical to the



121 M. 1 - a way of filling the
Mosaic Deck, the rushing in
in action & some of the heads of the
I am thus done with from it.

(14) From the Deck, the bank of the ground
by the absorption of the water, the
the right side of the lower right side of
the Diaphragm, right side of the heart,
the of the lung, the, with the head, like
of the Mosaic Deck, all of that side (the
is inserted into the right side of the right
joints & the Mosaic Deck, the very
that compared with the Mosaic Deck, the
the Deck is from 10 to 20 inches, as in
the former from a quarter to half an inch.

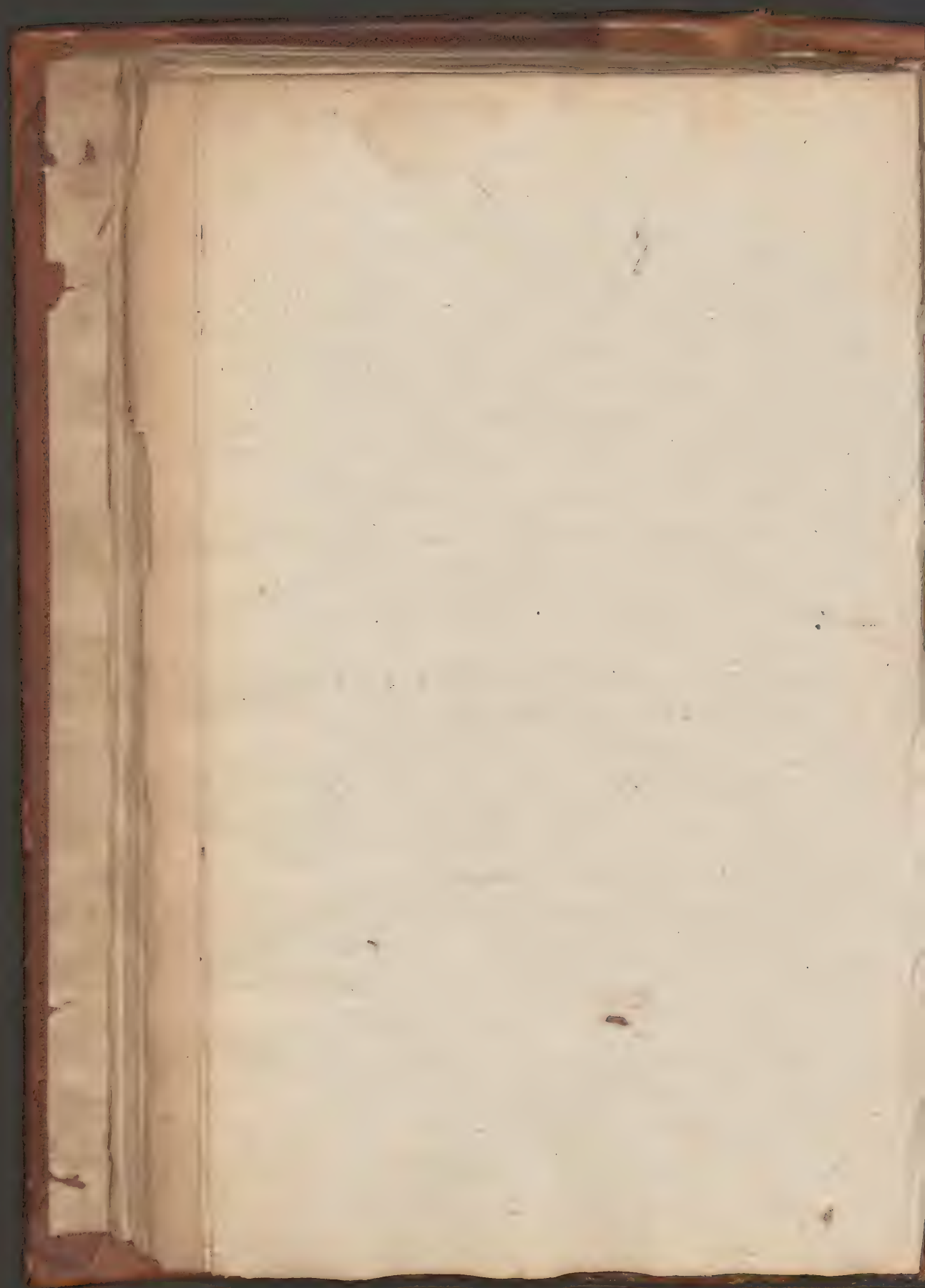
John ^{Wm} Miller A. S. 1811. 1812.

The leaves & fruit of both
in same place - The prostrate
one has yellow flowers with
white fruit. Both have a gland

The 2^d species is found in the Province
west of the Mississippi. It is larger than the
Cyanus. It is not inserted into the
muscle of the wing - but forms a hook
among themselves as long as 1/2 in.
The mandible is curved forward
inwards. Sometimes it is as large in
diameter as a common ring-billed
goose. In the hand. This is a
large

The situation of the Thoracic Duct under the side of the Aorta, M.D. may may probably be, if the artery may may pulsation zone as in Patient of Dr. Hunt, 1802, & J. P. L. & G. S. for? & J. subclavian vein

Mr. Thoreau's last term in 4-
angle test. ^{sup}Angular. Subclavian
nervous system. Indeed it is a little more
on one side ^{tho} other - but in part
it is each in 4- angle. I have
been said of ^{the} ~~the~~ Thoreau in
of nervous system - but Mr. C. never
saw this term - and think the
has never to imagine it does
not with -



It is also ~~probable~~ that the
Lungs & large air vessels
in the Thoracic duct, that which helps
the infection might be broken and
make the virus easily get to the
blood vessels. Mr. C. tried this of his own
accord, probably one — The rupture
of Thoracic duct found in ^{the} ~~the~~ ^{the} ~~the~~
subclav. veins is Mr. C. imagines
because at that part of circulation
is extremely weak & consequently
most in danger. There is doubtless
in some other part, for as the change
of blood in each of these veins runs
each other of blood of the chest into the
blood vessels of the source so much
facilitated — In a woman Mr.
C. tried what I did about 5 or 6 weeks
in the morning, he found the
lymphatic system in the chest
concerned in the form of blood of the
chest but more easily in the
horizontal position, as it does
interfere against gravity and
breaks of nature forces in a large
quantity during sleep while we are
in an erect position.

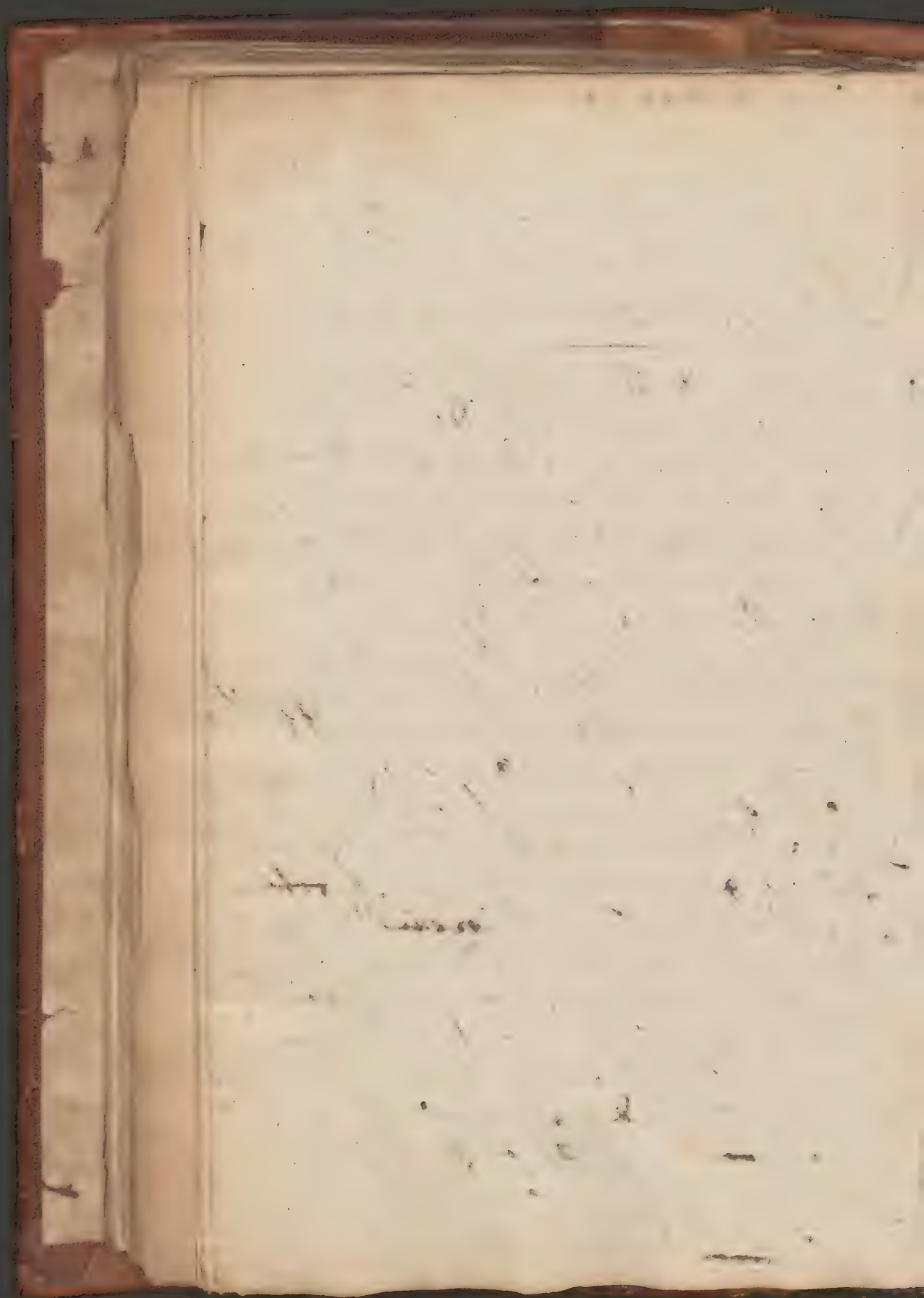
The Lungs & trachea are
supported by the diaphragm & the
system of arteries are so —

The abdomen of a living asp was
cut open - and a part of the intestine
taken out - The intestines were then
pressed away a certain distance,
and a part was made a ligature on
each side - An incision was then
made, and a quantity of milk poured
into the intestine - The surface was
then tied up and the intestine
returned into the abdomen - In
about 20 minutes, if an animal was
examined, and the ~~intestines~~
examined, were found quite tinged
with the chyle - On opening of the intestine
remains and surface of the bottom
out, it was not found to be with
the tinged with the white color of the
chyle - A similar experiment was made
with the stomach colored with indigo - and
another with milk & water of the
color, or small rings were found
in the organs if they should be cut
out in the same way -

That ~~vacuum~~ red action, &c. &c.
absorb was evidently of a
general character. made by
Hunter (2) & I then thrust it
absorbents are of only ^{the} ~~referred~~ absorb
Lecture 13th the Absorbents contd

Galien & Hippocrates both imagined
that the reins attracted fluids in the
same manner a pair of bellows does
air. That is, as soon as a weak Reins
from soft cold become propelled forward
they were immediately re-filled by
this attractive property

The small Pts. of. absorbents certainly require a stimulus - for we frequently find their mouths are insensate & in fluid for more 2 or 3 years (as in anæsthesia) with. any absorption. They place, till some thin. has given a large quantity of Pte is ^{brother} absorbed w. ^{incredible} ~~incredible~~ velocity. Mr. C. thinks that Pte may be absorbed & act as a vacuum & convey to the blood the Principles - as he has known the thoracic duct quite empty & in a few seconds - filled almost. ~~in a few seconds~~ after milch had been introduced into the breasts. It is said if there are no valves in the ~~absorbents~~ ^{subcutaneous} vessels of the Pte. & in the ~~subcutaneous~~ ^{subcutaneous} vessels there



and Mr. L. thinks it probable that

The life is I suppose to be
anatomical of muscles & membranes &
muscular pain.

Nothing can be more important
to the health of the body than the
food it is to be supplied with in the
of nourishment it is to be supplied with
nourishment be the most of solutions of
food into its various parts but for
a very short time. The absorbent
system is the most of the most important
the liver & intestines (that is when
it is the most of the most important
of the most important glands be it
scirrhus - and do not want to be
so if none can get the Morace
duty has been said to have been a
dist. of the absorb. but Mr. L. never
said it.

The lymph is of fluid & lubricates
all the cavity of the body & so as to end
its internal surfaces to play more
easily on each other.

There is probably an action mutual
depends on the balance of the absorbent
and the life of the body & nature of the
of better, is in some proportion
to the former. If then the absorbent
separate a large quantity of fluid than
of absorb. the life of the body will
then be of consequence.

In fever there is always an
an action of the absorbent

1a



...
...
...
Why the fact that it is absorbed in
such large quantity when the person
has an anxiety, cannot be determined but
it certainly is so —

It seems very probable that in the
(a) formation of new bone, it is absorbed
to take up the place of already formed
bone. I think of new bone in
the outside of it — for in a wound on
young animals, if given matter,
it was found that it is outside & extreme
had a great deal of it. I think of
it in the case of the heart —

It may be thought singular if
a body is capable of destroying itself
when it is absorbed to take up poisons
as infectious matter, & fluxion &c.
but it must be common. It is very
seldom so this, and it is of the
kind that had this power, it may
would have been able to absorb more
sterilely, & more speedily in
disease — It seems still more
surprising that the absorbent is
in case of destroying of body — as in
pulmonary consumption, in which
the lungs are daily broken down
by ulcer & absorbed — but Nature
had certainly her reasons for
this —

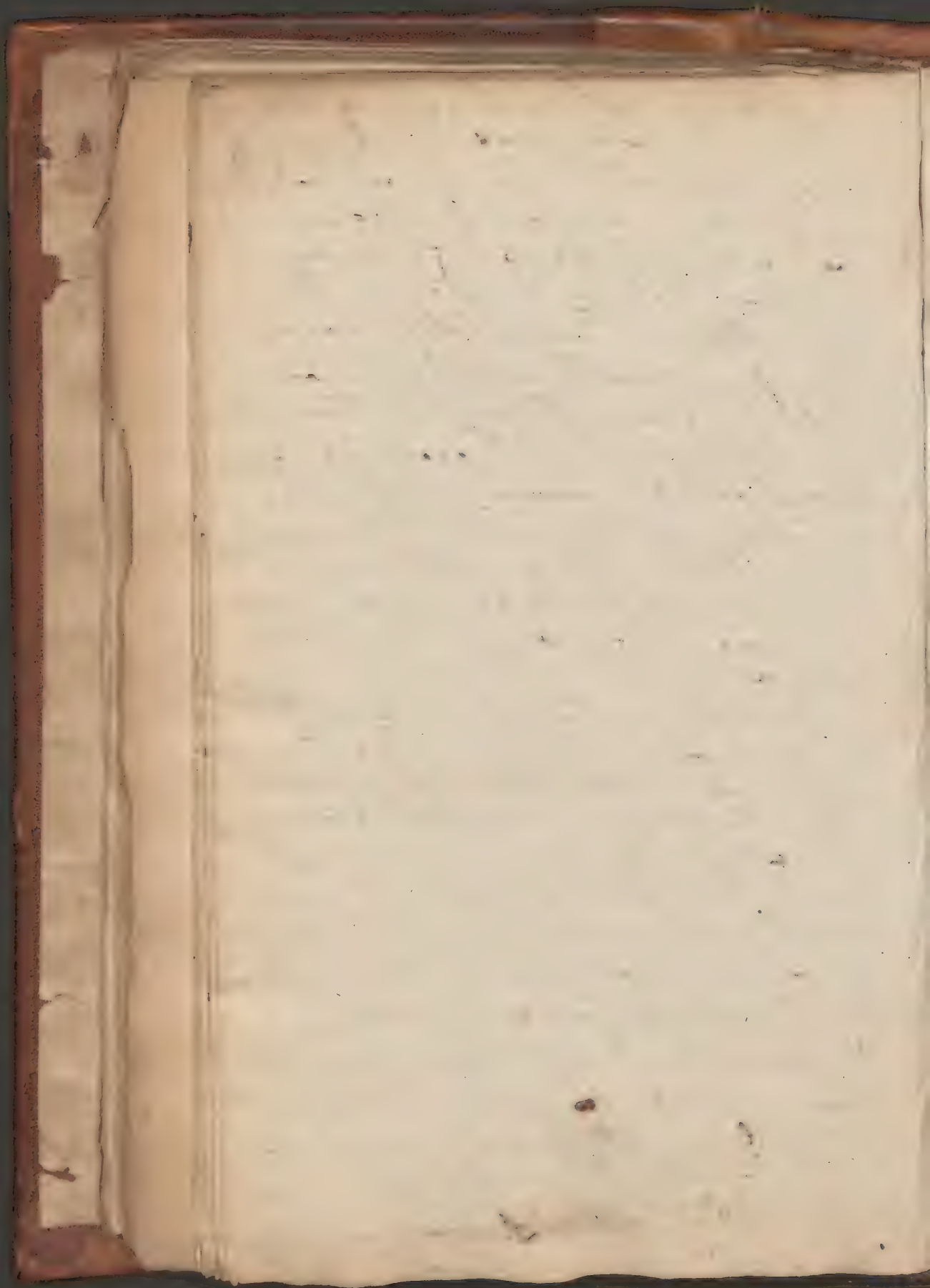
(21) Mr. J. mentions a case of a
cancerous enlargement of the breast
in which an ounce of Salt of Tartar
was given, and it was the person
who made up his prescription
making a mistake. The Pat. was
vomited by it for 2 days & nights
successively and nearly killed in
the violent exertions of it. Some-
times the name of Symplocia
was all suspected and no appearance
of tumor remained.

When a system is acting the
glc are more readily absorbed
by if absorbents - In weak habits
we find if change of case - and
some display & some of the absorbents
not have power to perform their
functions - In if. latter case
the use of weak - ought to be counter-
acted by every thing w^h strengthens
as Prussian bark - exercise -
herbsach &c. - - - - - - - - - -
thin applied
to a part affected, will often succeed
better than those to the system
In if small & sterile equal parts
Ginger & brandy is a favorite
applicⁿ of M^r C -

121 Nothing perhaps is more effective
in occasion of absorption than emetics
Hot vapor will often have a good
effect this way - and electricity may
succeeds -

Perhaps if skin - - - - - in
infl^d f^ocers may make the
absorbents take up oil & fat
In if cellular membrane, for
if nourishment of body when no
food could be digested by the stomach.

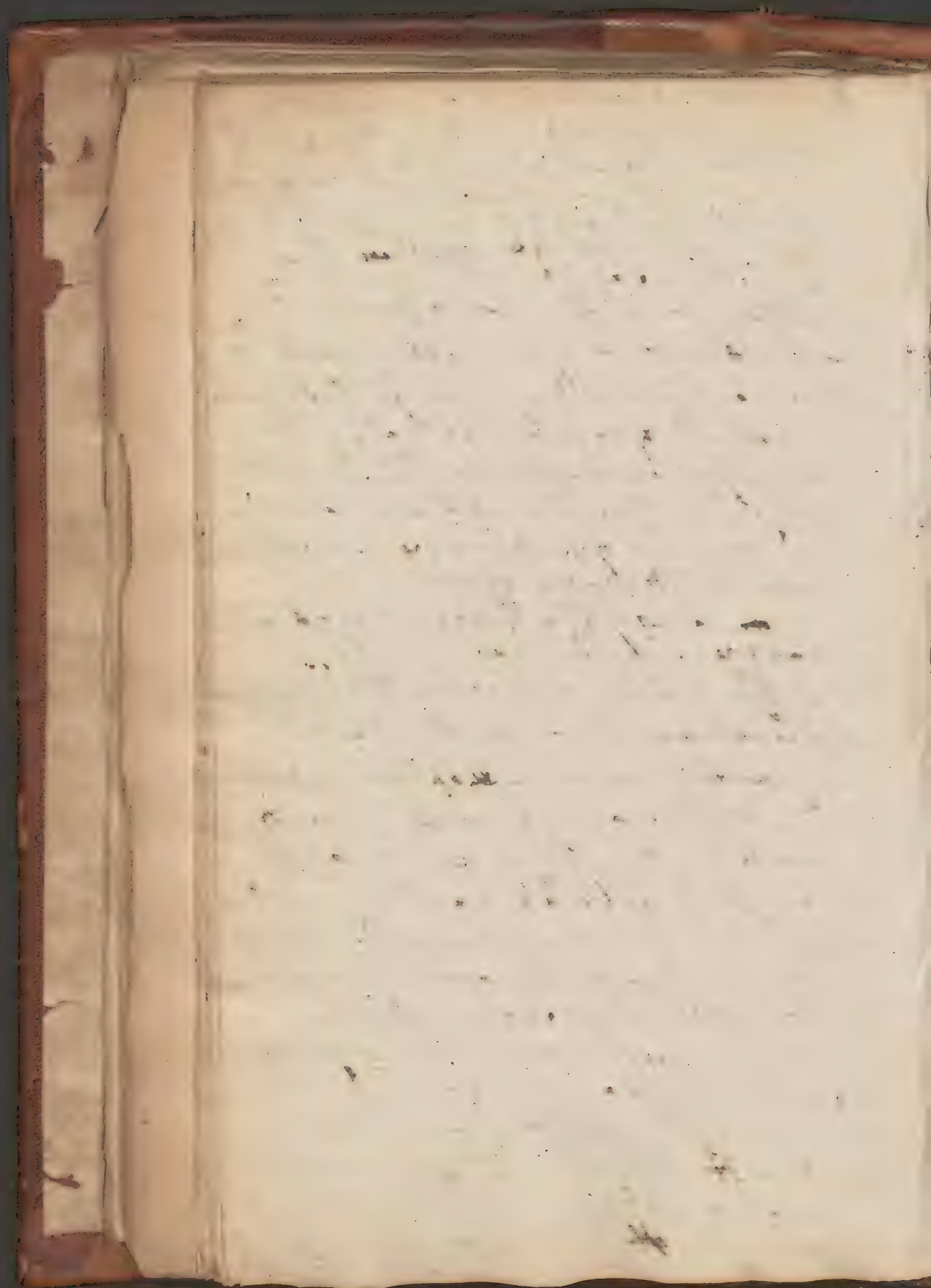
Woolen sottⁿ - hair &c are nat^l
liable to attract infectious effluvia & the
if further you may consider if for the
insects attend their excreta have
their nests made and most dangerous



Do not call it a caustic, that is, a
thing which is capable of softening
matter, that the alkali is, & these always
more in this sort of soap than will
combine with oil, in a gentle way of
success of skin & blisters.

It is the same w. neutral
matter - for if the glass penis, &
parts adjacent are well washed
after cauterization - an infected person
w. solut. of caustic alkali, it
scarcely ever happens that of. fest-
is removed; for the alkali combines
w. of. mucus of skin, & of. new
matter is drawn off.

In cases of the bites of mad
as dogs &c. if the part will not
be suffered to be cut out, the best
application is a caustic (a little
of. caustic com. - a piece of soap
is a sufficient) & each 1. or 2.
of a caustic & in the end soon
enough of. good caustic should
be applied - when a success of same
end - In such cases, if caustic
should be applied as soon as possible, to
prevent absorption taking place
& which becomes before of. mor-
day, absorption has greatly taken
place - If the quantity of hydrophobia
giving the bite is 5 or 6 inches, the
of. accident - If it is too late to
use a caustic or cut out of. part



mercury in all the given
cases. If hydrophobia brand. is
appear'd in such quantity as to raise
Dr. Fuller is very fond of the remedy
Absorption of genuine gum. is
certainly takes place, for one finds
if it will have a very great inclination
to make water, and works that
in it for some time, it goes off
of itself - and no more than for
Boys is made of with time will
make of urine

It is certainly necessary
absorption to the place, ~~and~~
see tails

Don't say. Don't absorb in
matter, w. there is, for there are
inst. of people never need the
remedy. But the contracted
women who were affected with it
constantly, and the same of the
matter of the small-pox, &c -
The absorption, though much
either not done or done. If taken
up with matter, as when it is
taken up with them, it is not
dissimulating in solids - and
if sooner. The absorption of
whenever some disposition to
of infectious matter, at others not
in small-pox. For have they
- and I am sure of taking up one
- and I am sure of taking up one

(5) M.C. had a remarkable case
of this in a gentleman who had a
gonorrhea attended with signs of
of urethra not in a very slight
degree. Three grains of Calc. lull made
into a paste were introduced in the
end of a syringe for 4 days successively
~~at~~ The last of these days, he completely
went out, & got well - wth good
consolidation, all the symptoms
in a critical degree nearly gone
off. This quantity of mercury
had been taken at

(6) but M.C. divides 'em into 3 classes
of simple - of compound, and the
conglomerate. W. C. says does
not treat the first of these but in one
and the same

Whether it is considered as
coated with a large quantity of matter
will depend upon the nature of the
matter being used or not, is
doubtful

The flame's surfaces are so
absorb so readily - but sometimes
they do not

Some absorbers are capable of
both emitting & absorbing at once
& of course the

Lecture 1st of the Glands.

A gland is a circumscribed mass of
flesh, rounded, yet tender, consisting of
arteries, nerves - absorb. excretory ducts
ramifying and propagating the
same relative situation

which are to carry off the secreted
of veins to carry back the pure blood
to the heart - of absorbents to take up
of excretory ducts to
carry off the impurities and the
nerve to govern the secretion - This
last is proved by the function of the glands we
best of all by the case of the salivary gland

The glands were divided into
glands & conglomerate - The
former simple - The latter compound
Sometimes the branching of the arteries comes
into the glands in very great numbers
and of course from a great number
before they enter it
The nerves of glands are

12
a) a transparent fluid ~~found~~ in
contact of the skin, or the
perspiratory duct on all surfaces
of the body almost —

(b) There is a good instance of this
in the testicle —

(c) There are a kind of excreta of
fluid secreted into them by the
arteries on all arteries —

Or as well as the prostate in men

general with very large myxomatous
In some glt with solitary. A
cachymat. The nerves appear very
large but on examⁿ it is generally found
that they are going on the way
to their parts. In f. live. N. we see
very large nerves are sometimes
seen, & the same is true of the

The 1st class of grain is the
of. exhalant, which are before the
are continuous & adjacent. This
is a straight tube with the rows of
of. The 2nd is the continuation of the
artery, ending in a capillary vessel
with a very minimum of circulation.
The 3rd is a follicle, which is a small
perforated round body, with a perforated
summit. These are solitary, &
sometimes in clusters. They are
divided into 2 sets - the first being the
largest in the opening of the tube. These
of. rather when of. perforated is a small
small (4) - The 4th is the lacuna. These
are principally seated about of. parts
generation of women. The
5th is the crypta - The only place
they are to be found in - is of. hidden
It was ~~found~~ thought of crypta from
little bags, but it is plain they do
not, but are consolidated of. arte-
macerate they may be unravelled, &
drawn out to a consid. length
The 6th class is of. ~~acine~~ - The acinus

1a) Ruyssch —

(6) The liver G. Baillie's says
has its glands of this kind

(7) There are some glands which
are absorbed into the constitution
after a certain no. of years - of this
kind, in the Thymus which in
a child at birth is a large gland
situated between the lamina of
pleura & anterior mediastinum

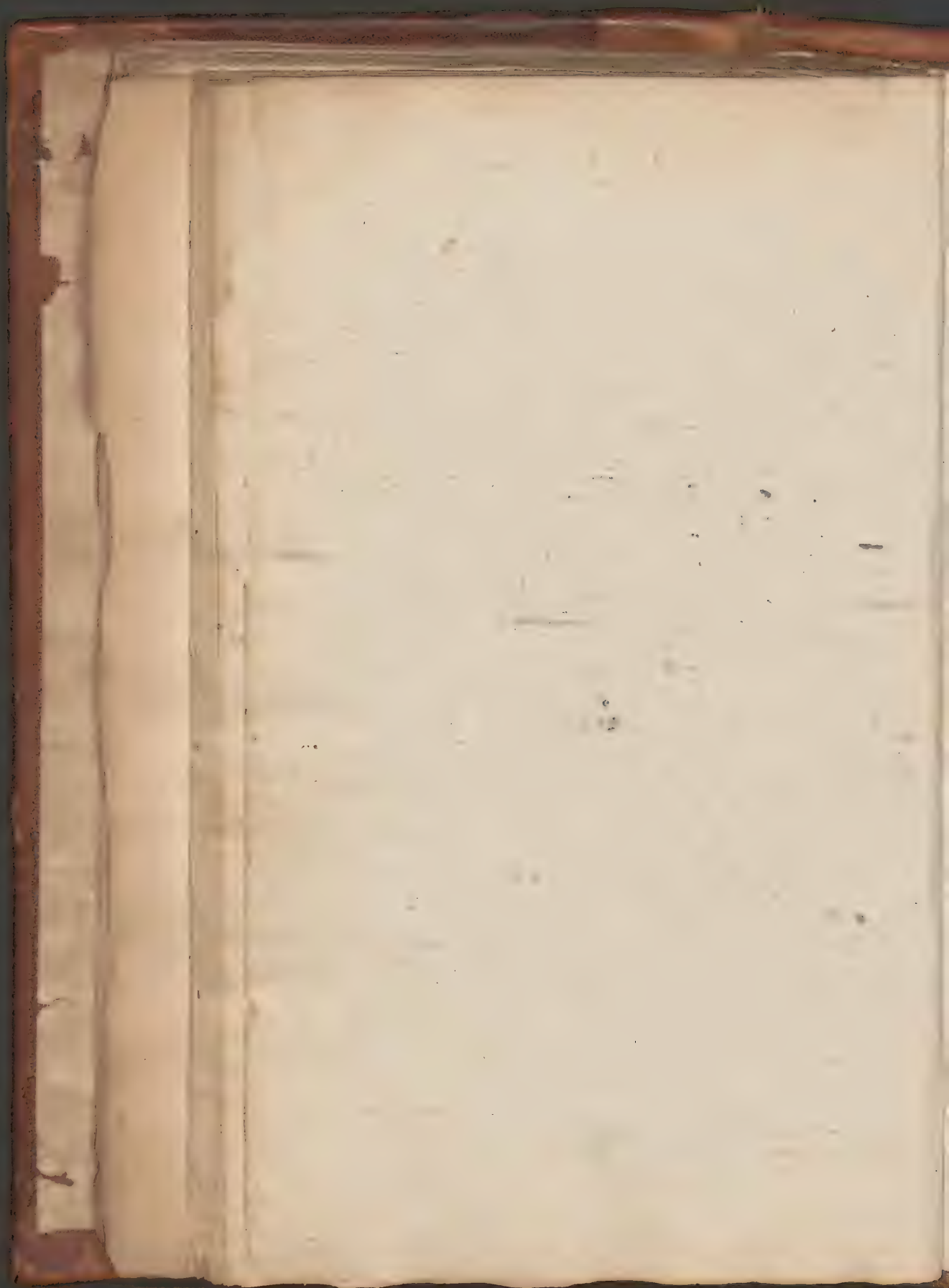
(8) Some of the excretory tubes seem
to have ~~very~~ great compound ducts
glands & cellular membrane ^{that they}
appear to have a muscular ^{power} as if
they w. contract & thus of a cartilag.
nature as if the case of the ear of a fish.

(9) Some glands have only
one excretory part, as the pancreas
testicle &c

Each being
as large were as the heart -

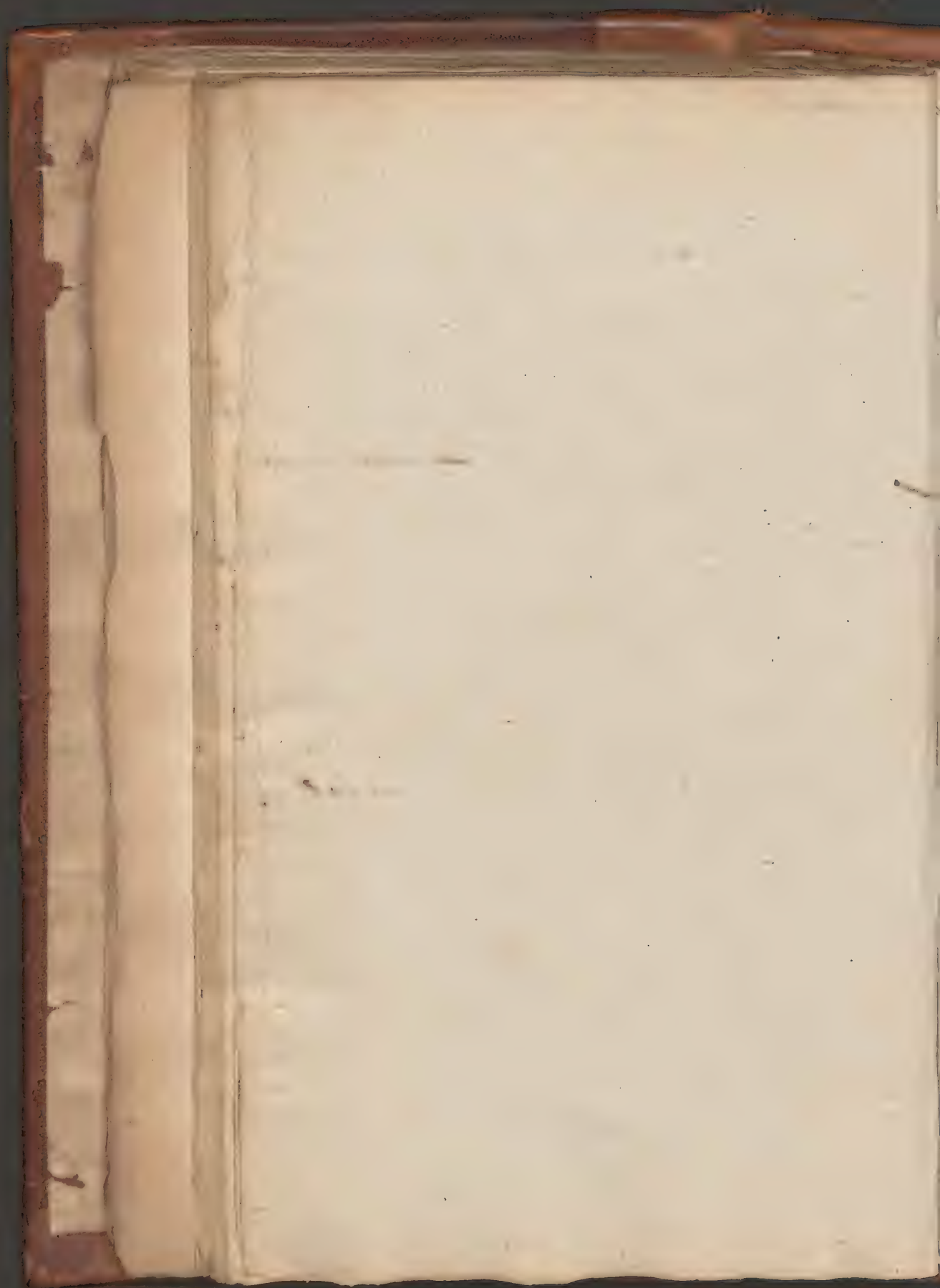
[illegible][illegible]

(10) along *J. uarsa* *differentia*



~~From~~ that thing is a
primitive and is not a
tailed theory as the rest
it was if that were a
triangular &c. according to
the old that is not a
certainly - Window straight
direction was freedom of the
even that that has a
to be that it is a
to one only. There is
variety of other theories equal
inconsistent

Nil trinitatis adium est
Expositio Ichironta Hercules labor



Letter of Mr. - 1878

The nervous system is of a most
important nature & requires our particular
attention.

It has been said of the spine
man has been said to be a
but this must have been a mistake
as no one could be a man if he
were. The spine is the
center of the brain & nerves
of the body. The brain is the
all his actions are mechanical
& apparently without any
control. But as the brain is so small
and so delicate a creature as a
fly, why is it so much of a creature?
In a common mail of brain is
easily seen sending off fine
threads for every part in a radiated
manner.

It seems very strange if it
be a creature, and if brain be so
considerable of animal powers. What
is large a portion as a sponge
between and proper effect of the
in any, such as the effect of the
perfectly recovered with any loss
of powers of mind.

The nervous system has
been by anatomists divided into brain
nerves & spinal marrow.

In human species, the brain
fills the cavity of the cranium.

101 In quadrupeds, it descends
in the ~~head~~ head by the nose, while
in man it ascends and
ascends - Horses therefore are far more
liable to have soft spots in the head, and
when they hang their heads
down and their heads are made
to feel in the saddle with their heads
up and they being placed so

...comparing the brain of the ...
the ... the animals it is ...
so ... in ... the ...
very large of brain does not occupy
half of ... cranium —

The brain is placed in the upper
part of the body for various reasons
in for of better advantage of seeing
things &c (a)

In the adult of brain ...
is ... 5 pounds ...
In the case of ... brain is
... 2 pounds ... in ...
in ... 10 ... so that it is much
larger in ... than ...

The ... brain is about one
fifth ... of the body
... one ...

... the ... 14 ...
... is ... want for
a ...

The ... brain is the
... the ...
... of ...
... it — It has
a ...
called ...
...
... the ...
... the ...
... the ...
... the ...

1st It was call'd Play of Amiculi
choroides

The dura mater appears from several aspects
to be perfectly immovable & is covered by a
enough of itself stimulated.

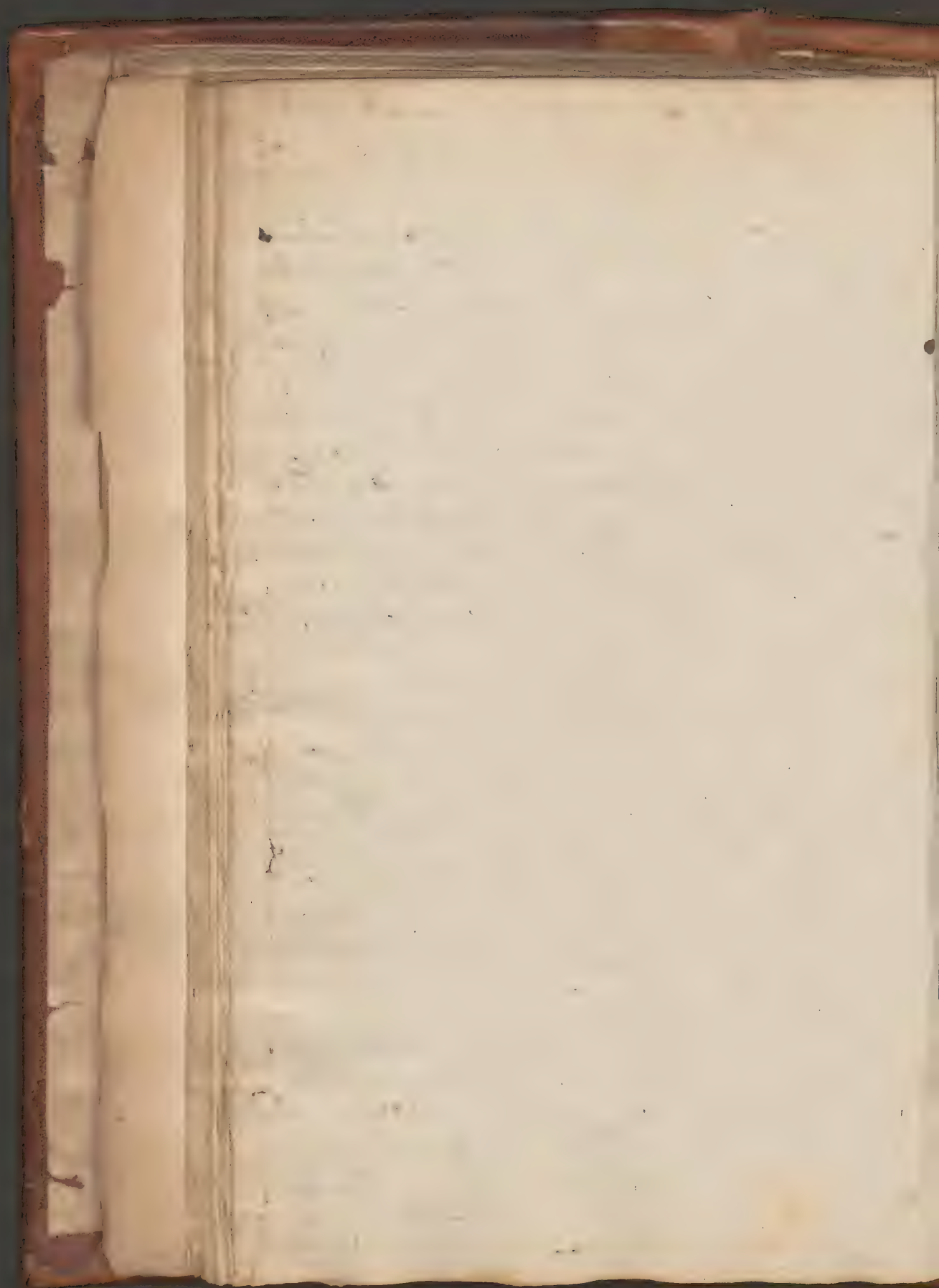
The *Arachnoidea* or *Arachnoidea* is situated
immediately under the *Dura mater*. It is covered by
Dr. Hunter thought it connected with
the *Pia mater* but it certainly is
not a membrane it is a *serosa* & the
it - but this it does not do. It is
covered by *Pia mater* it is of a
2 - verities, it goes so low as the
sacrum. This is a *serosa*, it is perfectly transparent.

The *Pia mater* is the most
immemorable & is immediately connected
with the brain. This is where the vessels
carry food & blood.

The vessels of the brain are a very
numerous & - which are all
branches. The *carotid* carries a
considerable quantity of blood to the brain.

The *Arachnoidea* is a *serosa* & is
connected with the brain. It is a *serosa*
covered in by *Pia mater* & is
but never partly, it is a *serosa*
supple.

The substance of the brain is divided
into cortical & medullary. The
1st or outside part chiefly, it is of a
brown color and is of a granular
texture, it is the *Arachnoidea*. The
inner part of the brain is of a
chubby, soft. It is a *serosa* & is divided



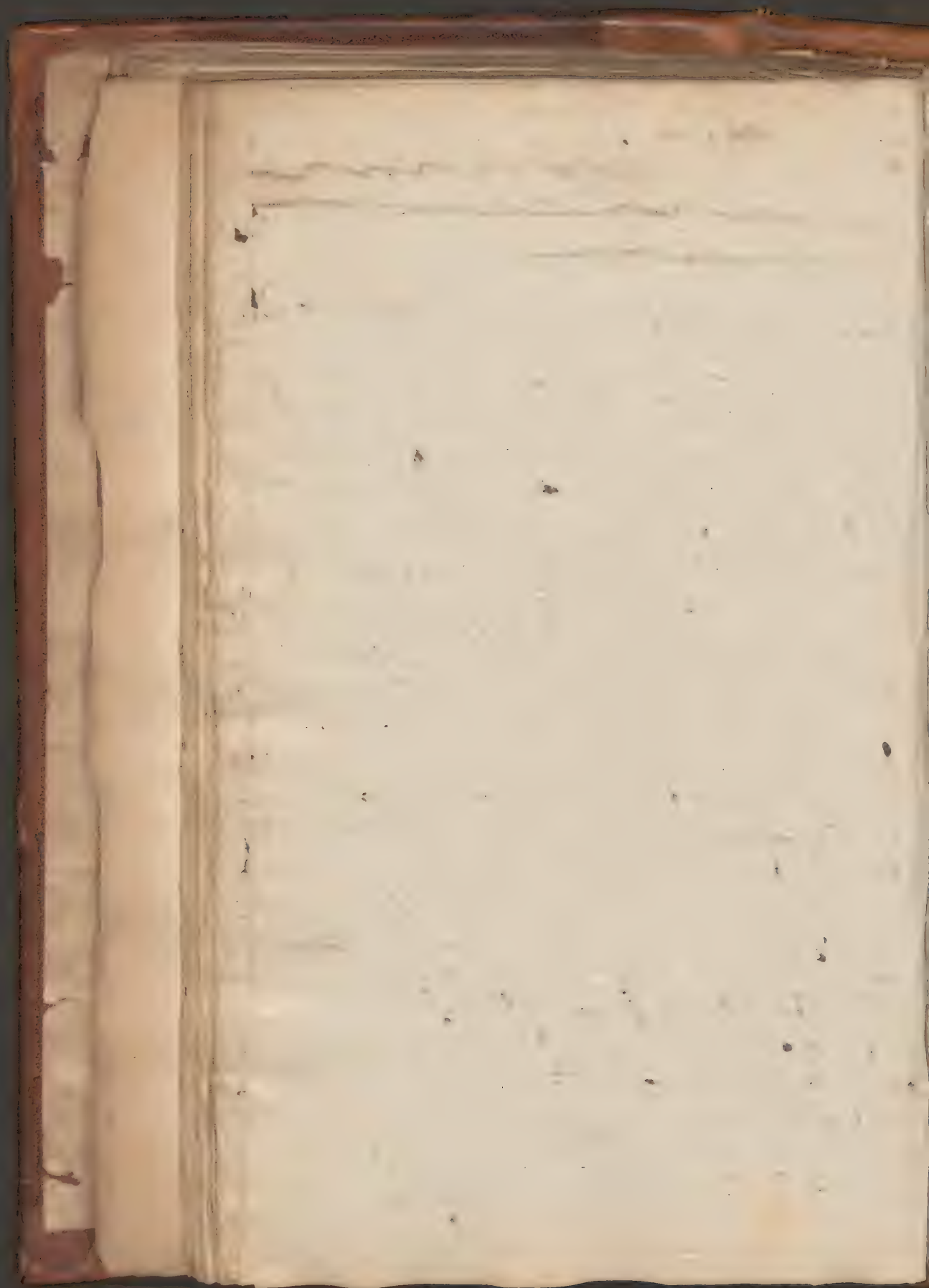
... a little suspicious but
I will far enough to see
... ~~the same~~ ...
~~very small ...~~
~~is ...~~

Lecture 19. The Nerves & Brain contd.

The coat substance is ...
vascular. This coat ...
The other is of substance of brain
... vascular. The medullary
substance is extremely white in
general - but we frequently see it of
... shades of ...
... this coat is of a
light blue - but this color disappears
in the process of gain. That
of medullary substance is vascular at the surface
... white ...
... that it is also fibrous
... that a human brain
died with concentrated ...
contracted it is almost ...
... former ...

An distilling of rabbit's brain
3ij boil down prod. ...
... little ...

The cerebellum is div. into 2 lobes
... of paleiform ...
The cerebellum ...
... of ...



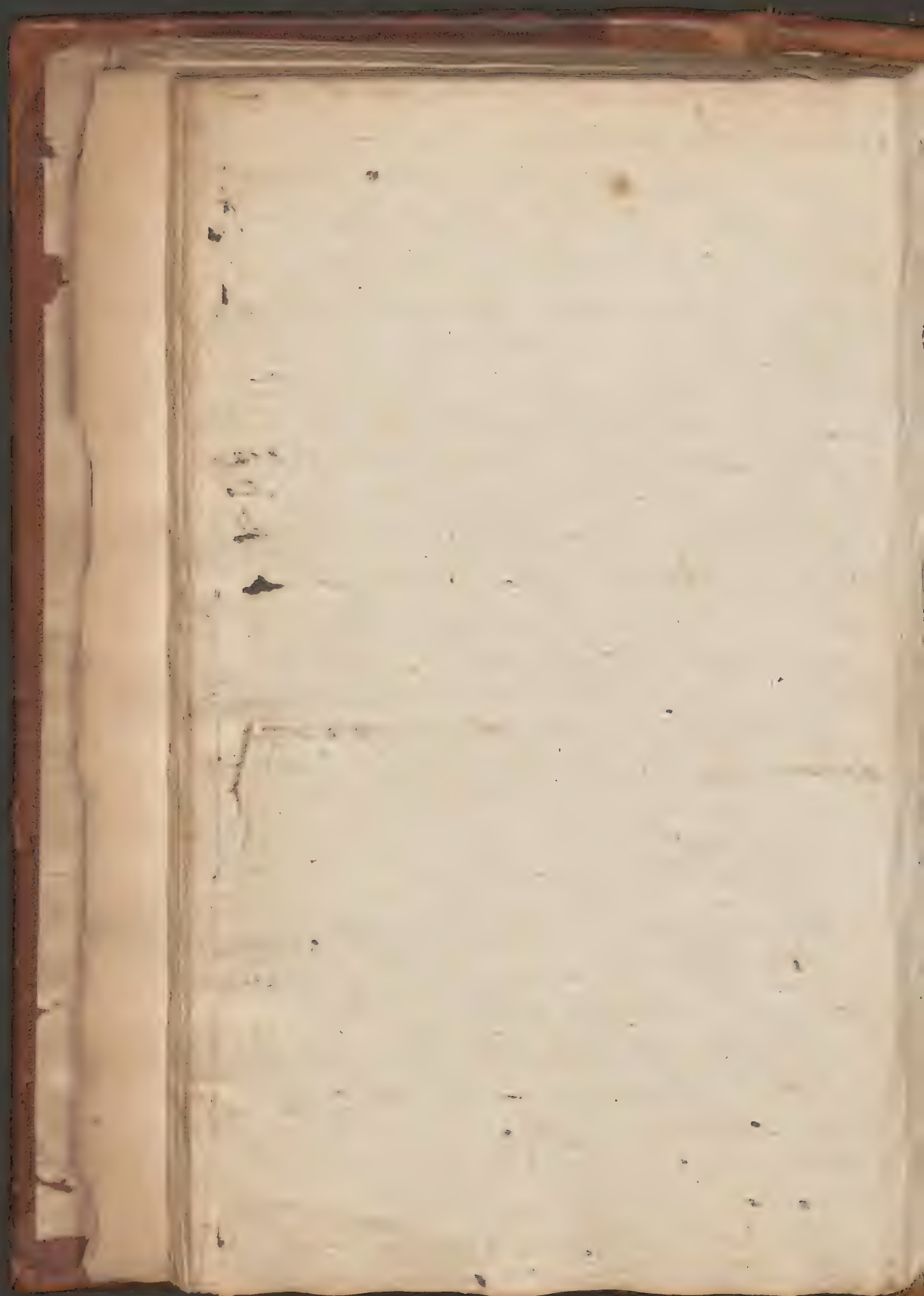
while the former is exposed in
concentric curves

The medulla oblongata arises
from the brain. It ends in a small
process and goes forward to the
pyramidal nucleus. As soon as it has
passed the bulb, it takes the name of
medulla spinalis. The medulla
oblongata has for its coat of. dura mater
pia mater & tunica arachnoidea.
The spinal marrow terminates
in the 12. vertebra of the loins. and the
thoracic spine. of large nerves
call'd of. cauda equina. The
pia mater is contin'd only to
of. vertebra of. spinal marrow
but of. dura mater ~~terminates~~
~~terminates~~ contin'd further in the
of. curves

The Nerves contd.

The nerves are white fibrous
concentric chords arising from of. brain
going to every part of of. body.
It may be objected, that they are
sensible, because of sensation
originates in of. brain but the
nerves are of. medium of that
sensation

The nerves may be discover'd
from their being so elastic for



any elate they may have depend
on & well as to be secured there
A small quantity of fluid may be
dropt from the system. I know not but
~~the~~ Mr. L. thinks of this is either
lymphatic ~~fluid~~ or some such fluid
as it moves from veins art.
& absorbent running thro' their
substance - They may be Galen
also lay of ganglions from the
thence

[illegible]

The dura mater is not found continued as a coat to the nerves in any one, except J. Optic nerve — What gives them their firm tough texture after they get some distance from J. Brain, in the cell? must be from connect their fibres, growing stronger & coarser —



The nerves as such, as has
been said, contractile or contractile
as in numerous experiments.
If caustic applied it was found
if the nerves never contracted but
always the muscles, the moment
they were touched - This I thought
whether it indicated that muscles
are a continuation of nerves.

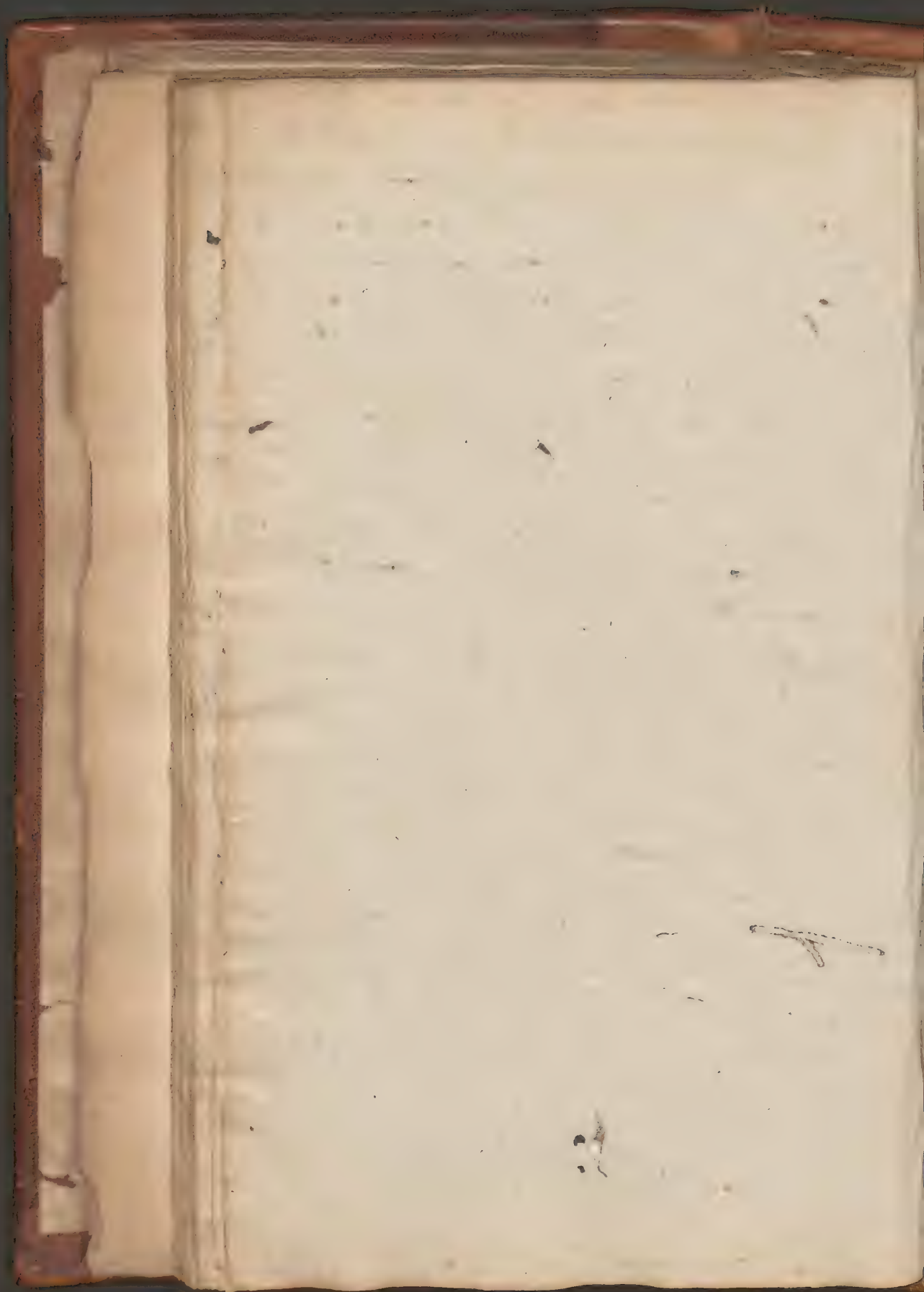
In various parts of the body of
nerves be are much more
visible than there in others
as for example by skin and the
organs of sense etc.

Sept 20th Nerves continued.

The Glands of the eye is
very large but they are internally small.
The choroid & ciliary have no
nerves - The muscles in eye have
nerves from the bones, particularly of the
orbit as the ciliary - The optic nerve
very large in the orbit but small
towards the brain.

The nerves contain soft thin vessels -
are very small & thin in origin - but
are large as they go on for some way
growing small again towards their
termination - The nerves going
down the spinal column is called
the spinal cord, the nerves going
out from it are called the spinal nerves
which are very small as they go for the most
part to the muscles.

The nerves in eye, except at the
origin, are very small & thin.



Shrimps & a little of the
of Murelles ~~and~~ a little of the inner
side & so.

Nerves can hang, & left neck are
frayed on the outside of
joints - as the ulna, or circumference
of - which makes it very
probable they carry not
fluid except ^{by} their
surface - Nerves in
general accompany
arteries very closely - but not
always. ~~Arteries~~ ^{Arteries} whether they
have any influence on the
arteries. But accompany or not.
Nerves is doubtful - but rather
probable it is probable in effect
the has been produced by the
unaided nerve in the artery.
That there is some sympathy
between them

The nervous system. 1st is -
1. brain - 2^d in organs of
sense - 3^d in organs of sense - as the nerves
of 1. auditory, eye, &c.
2^d partly in the skin
3^d in the ear - 3^d in
voluntary muscles - 4th in
bones - 5th in ~~vol~~ involuntary
muscles - 6th in vital organs
as 1. heart & lungs 7th in

(a) Made in 1786

6/2/86 sent

as before, veins & glands -

Sept 21st The Nerves continued -

On supposing that a
quantity of matter may be taken
away from the middle of a section
of a nerve - a general effect on
the whole of it is seen a third part
might be taken away without great
disturbance but the middle part is a
space except in the middle, it is a
most sensitive part of the nerve
the lower course as to the effect
on the human labors -

Mr. Jackson in some experiments
made on a turtle, that the after
the middle of the nerve was
cut it was seen that the
movement of the eye was
all this motion consisted of
head and the same in the
rest of the animal was very
soon after the middle was cut

Sept 21st Mr. J. divided the nerve
on the side in a large bag - he made
after the division of the side
came on and also the side of
the body caught a little after the
of the nerve of the side was
cut the body did the rest of the
on the side of the nerve the
focus of generation

Sept 22nd The nerve was again divided
on the side of the body
the nerve was exposed
the side of the nerve in 28 hours
the nerve was exposed 28 hours in

In 16 years after the operation,
there was a remarkable return
of the vegetation - the pulse was
increased to 120 - and I lost weight
soon after —

Left side of the brain was a divided and almost
I length from each end of the
one side. About 14 days after the
1. killed I. day and found the
nerves of both sides regenerated —

Mr. C. also agrees that in if re-union
of the nerves, was effected by a scar
the cut through with an incision
union of the brain bones

John the effect of dividing the main d.
of the spinal nerves at the 1. perforated
by the Mr. C. gave a sign of
the nerves of the 1. just under
the occiput (at the base of the skull)

From several other cases Mr. C.
was convinced that the brain is not
the nerves with an connection
in the brain or nerves —



Physiology of the Nervous.

The Ruling Principle may be
met in nature either in its
nature. In y. latter it acts as a
preservative from putrefaction. as in
seeds &c. This principle may be
traced into action as their action
increased when already existing
and so.

The sensitive principle has
2 parts - one conscious - the other not
- The conscious part of this sensitive
principle lies in the brain - and
is called the mind. There is
hardly a doubt of its existence there
for if the head be affected by inflamⁿ
- the reasoning faculty is lost.
The grand difference betwⁿ the
sensitive & sensitive principle then
is that the one has a consciousness
of its action - the other not -

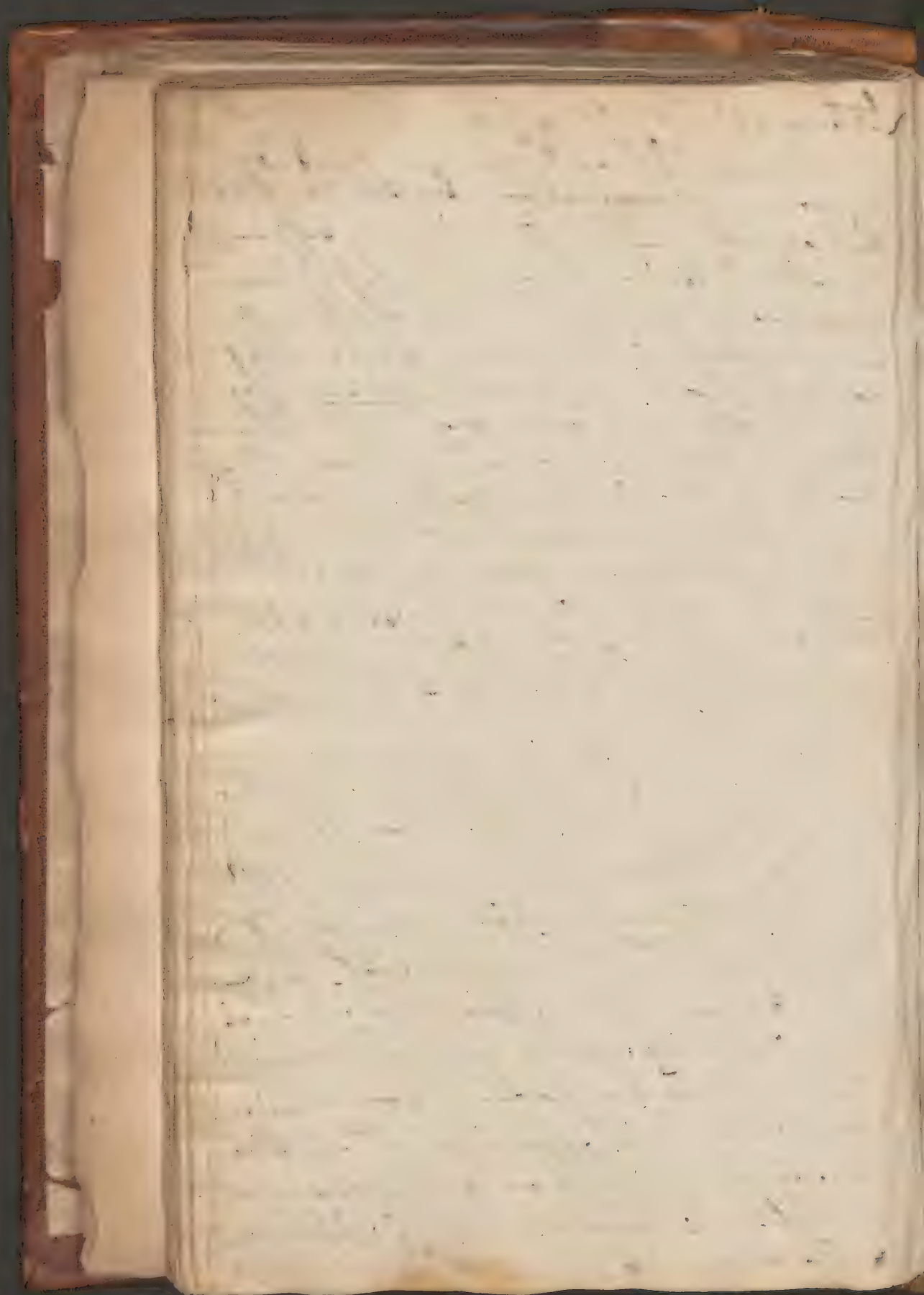
Sympathy is a word in the course
and of an impression made
on one body by another - and
received by the organs of sense -

Mr. Tichell relates a case where
a tendon of a man's finger ~~was~~
said to be a conclusion ~~of~~ in
which he had a suspicion of
~~for~~ being whether there was a
or not. He tied a piece of string
round the finger and drawing it
towards the thumb and then
whether he had cut it. Tendon or
muscle. He replied the thread
as he had not perceived the least
giving and tendon cut. It being
to be the tendon if had been cut

Lecture 22nd Histology of the Nervous System

Barro & Barro, been confused
by some, regarding by others that
they have it. — It is a very difficult
matter to determine — The capsule
of a joint is in itself un-
inflammable but yet we find that
coming pain is produced. Apparently
in it after sprains &c. — but the
this is for various reasons over the
fact, as you are sympathetic of some
muscles & some, I judge hard to
tell. Indeed we are beyond a doubt
highly inflammable (as) indeed all
the other parts of the system
as we have been led to name
this system.

The Peritoneum Gallie (Nerves
(as called as *G. peritoneum*)
is perfectly white & pale. It
is of the same colour as the
stomach if the vessels are
made on those parts on which
no nerves are going over, it
will also be found so. Gallie
found by his experiment that
of antimony which is one of the
stimulants (we know) that *G. peritoneum*
peritoneum &c. are well inflammable.



Have then, planning sp. happen in
will I have whether for sympathy
or what, all in poss. the whole of the
There cannot be doubt of the insensibility
of more parts in. have no connection
with the nerves

The organs of sight having the
most common medical cat. etc. etc. etc.
are consequently most suscep. of feeling
The eye seems the first in the
respect of probability of being af-
fected

Heller has proved by sect
that the strength of it is not
of internal or fibrous part of it -
more - but of medullary
subst. in which sensation exists.

It occurs most likely for neural
circumst. of sensation originates
in brain - and if parts have
their **feeling** in course of their
connection with the ~~brain~~ part in
find first in a insensibility of
the pain is first felt by it -
But the head in the part last affected
and is least common. remains

The connection, that of sensitive
principle has been called in mind
If mind ~~is~~ originated in
the body of the body of the body

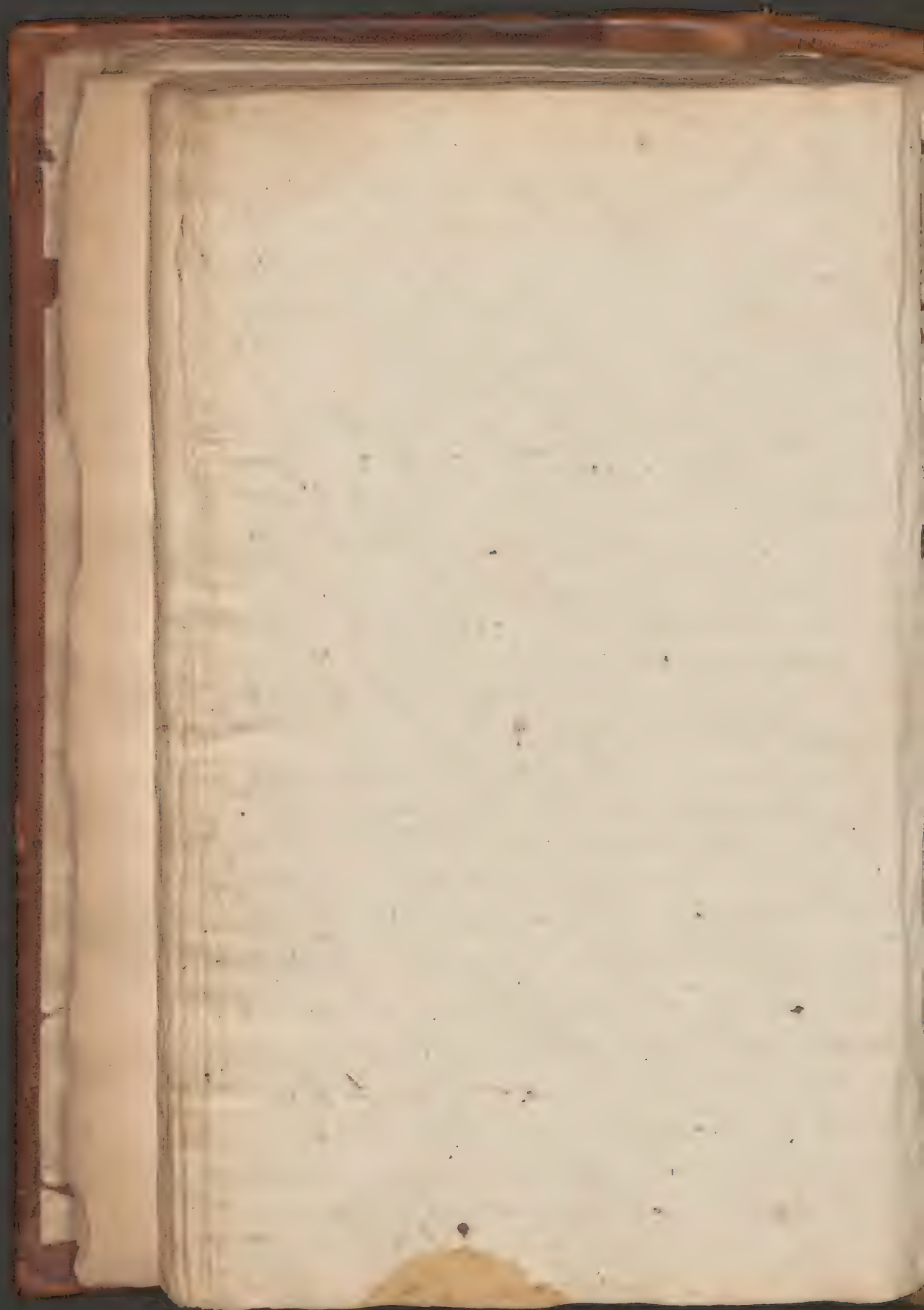
from the past of M —

body are fallen away - and
much good to be done

It is very singular if taking
away a very small share of
a part of the brain will bring about
a total & violent motion of the
whole of the body - will
have no such effect -

As has been said by materialists, why
do we suppose existence of a very
thing, and mind to be some of these
senses are sensible of? but this is
certainly no argument, for we are
not sensible of any except when put
in motion - an electrical fluid or
a red fluid, when away with of body
be filled with such fluid.

The brain is acted upon & may
be of organs of sense - in which
the brain has communicated to the
mind - you have many new things
between some parts each of
different people - as we see in
coughing - crying &c. - Nature
seems to have made a very more
and in mind in many ways &c.
such a strong sympathy between
of diaphragm & abdomen & regarding
and nose for we see if upper
palate is stimulated by heat &c.
convulsion within is in mind.



When parts have been affected
by the fire of distant parts, it has
been accounted for by communication
of nerves - but this in many
cases cannot be - for when the
nervous is cut the pain in the
nerve ceases. It is for some cases
between those that become
either those coming off from a
central ganglion, or a
nerve. I know of for if the
nerve is cut, pain ceases.
I whole of middle spinal
nerve is cut.

The *Mya mata* is an elegant
memorable fragment of *Mya mata*
The more have been seen, and
of brain by many operations of
body - as once seen, &c. - what
The *Mya mata* is a beautiful

(a)

Whether of electric fluid is
contained in the body, or
atmosphere is open. Have
yet been suffic. satisfactory to
determine

It seems very improbable
that the electric fluid is
contained in the body, or
atmosphere is open. Have
yet been suffic. satisfactory to
determine

The use of ganglions is a
variety of millions. They
are checked on feeling - a notice
for a more general sensation &c.
all which are far from satisfactory.
The nervous system is a
complex of various parts and is

Vide No 3.

Mr. L. owns a Cap. to which
with the brain has been added
a cap. of. peristole over the
cornea

The use of the brain is evident
for all ~~substance~~ in the ~~system~~
of. mind as originally in it

The intention of ~~control~~
control of. brain seems to be
that of. proportion of. control
about. may be made in those
cases. I find of. head & brain
as we find no other but of. brain
has so much of it

What if use of. muscles is
very careful

The nerves act some as a
medium of vol. others as
some power or influence exerted
to in vol. in the

In most quadrupeds except the
human, we find this ~~vol.~~ vol. in
in them, perfect at birth

There is only a sign of
vol. in the fibres as well
as in the. For by stim. of
one set of fibres of. muscle
we can make another
contract

Vide N^o 3.

Lectures
on
Anatomy.

By M. Cruikshank & D. Baillie.

N^o. 3.

(2) Haller thought of cellular matter
was inorganic. This however
D. B. thinks very improbable;
for if that were the case 2 kinds
of f. body wd. be formed of
unorganised matter and bodies
of cell-membr. is formed from
same matter, organised parts ad-
vise - coagulable by m. ph.
The cell-membr. is certainly organ-
ised for both the blood vessels & the
absorbents.

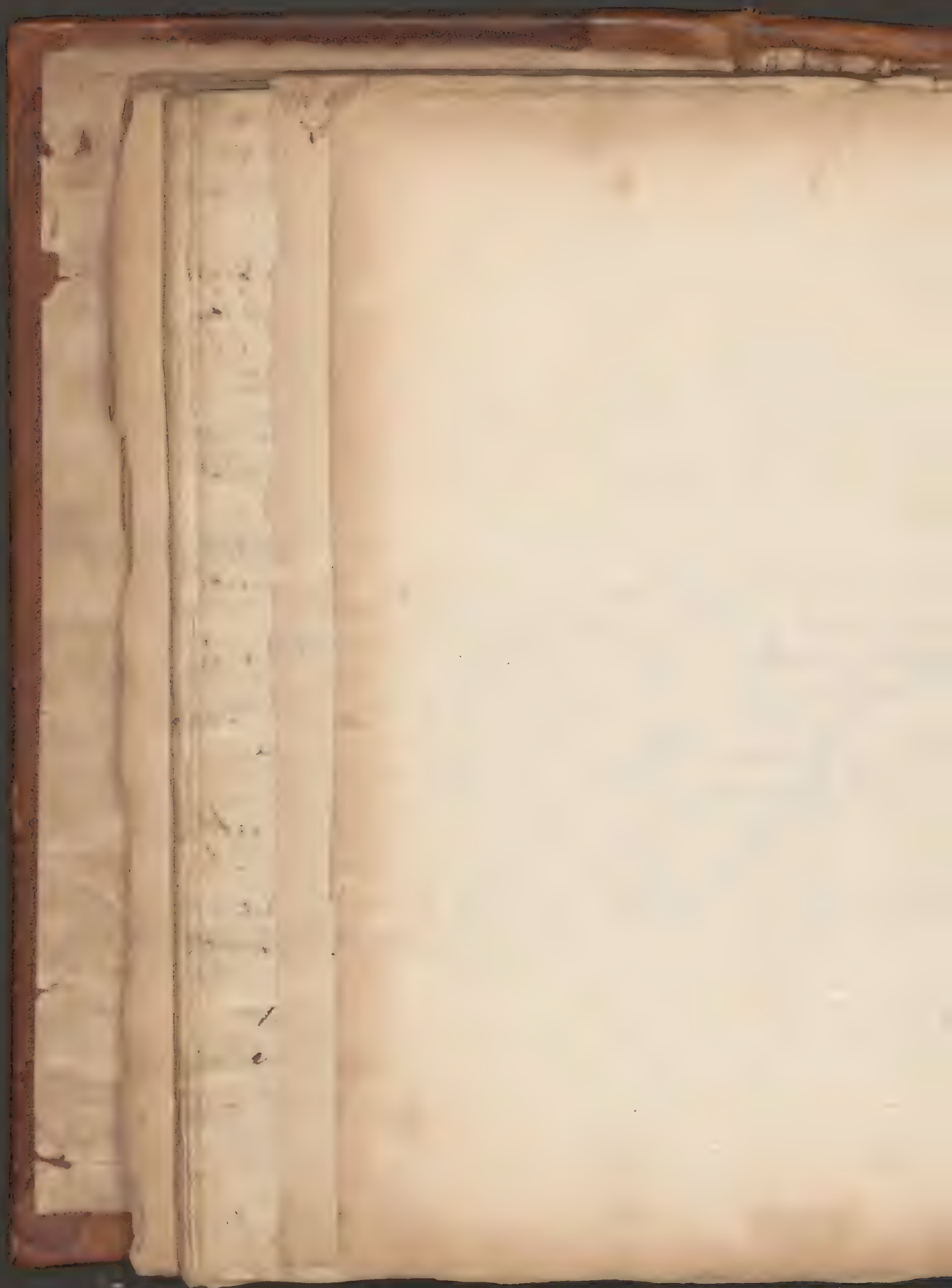


Figure 23^d of the Cellular Membr. &c.

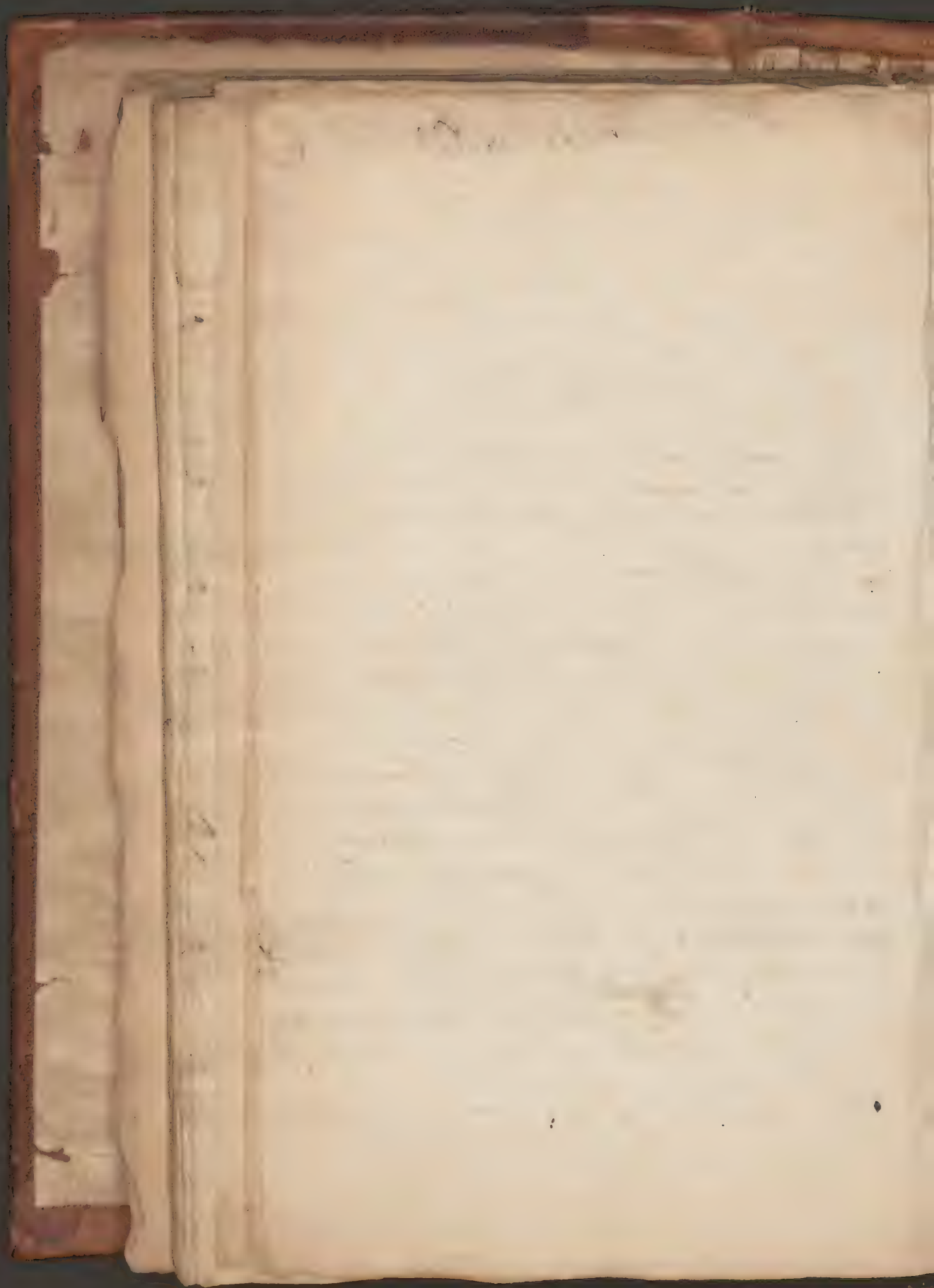
Tell them Mr. J. will send
 of great importance to sub.
 main, and observe if he were
 failed to grad. anxious to see them
 the former of them is a valuable
 Capt. on of opposite side none in
 road. again Mr. Hall's

The cellular membrane
made of fibres & lamina according
to Haller but M. (thinks only of
fibres. —

(a) The cell^r membrane is not uniformly extended over all muscles, but connects all packets of fibres &c. — The viscera of the Morax-stomach are not attached in this place. — by a cellular membrane —

The cells of this membrane composed of one another so that almost every part of body might be inflated but one place — We see frequently there is between one of broken of pleura & ruptured of pleura & penetrated of lungs, so that the loose a consid. quantity of air escapes to every part of body almost — This is called emphysema —

The above papers from J. will
be in best kept. Clerk and
Hull's not coming. They
are often mixed together in the
day

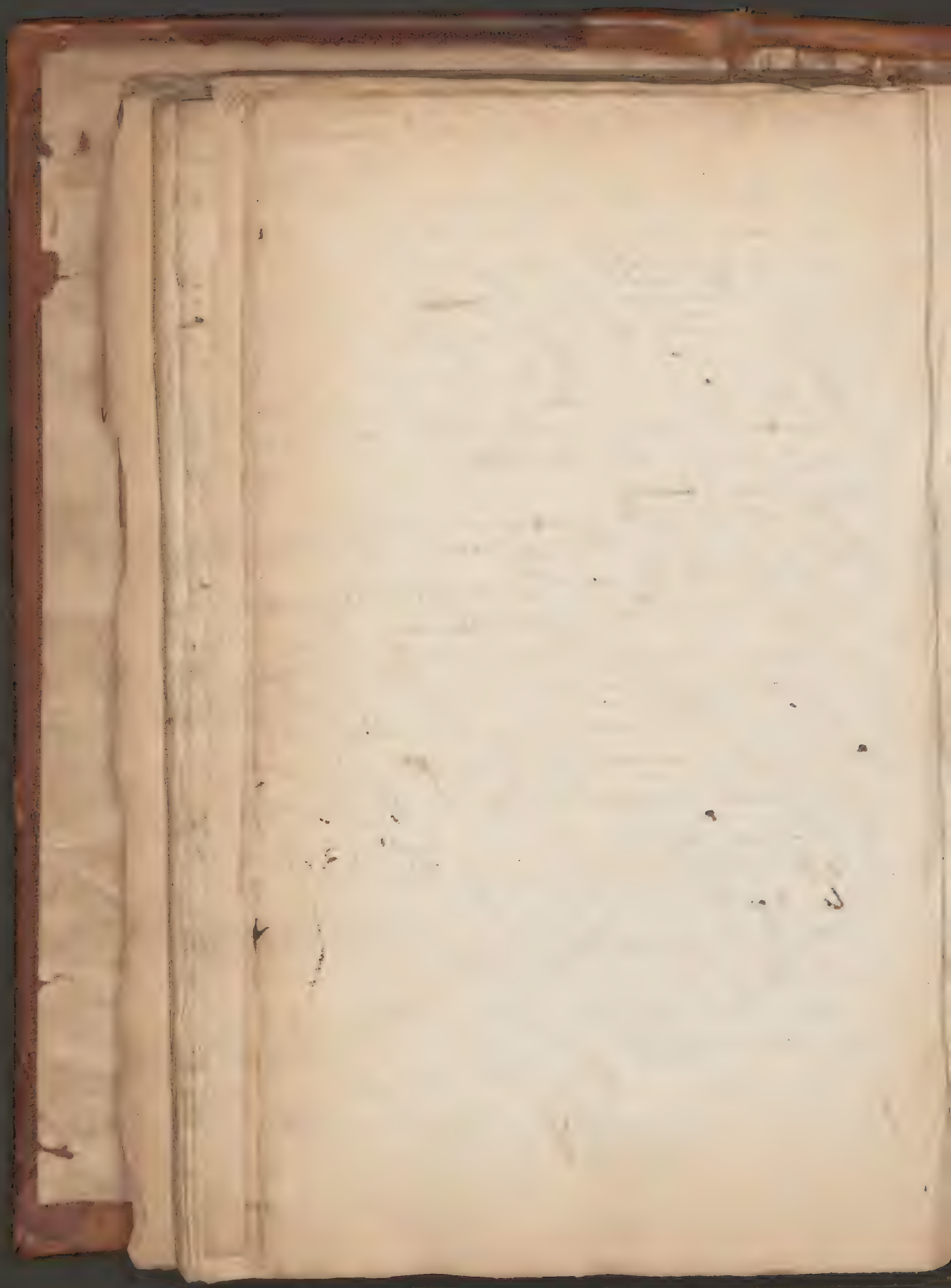


D. Hunter said the oil² mem.
was vascular - but Baron Haller
contended on the other hand that it
wasn't - is saying that its substance
was only partly the same parts - Mr.
L. says - that it is in a supple
disposition ready to be supple^d & c.
if it can't be vascular -
Haller had an idea that all of parts
of body were originally composed
of cells - but this is not
certainly -

The Ancients were ignorant of
adipose membl. containing oil
or fat of body - It is solid almost
always in the dead body - The
cellular membl. seems to undergo
very little change, at least in
young animals. The adipose
undergoes many changes - The
cellular membl. does not appear
to have any nerves belong-
ing to it - but only giving that to
the parts -

It is produced by indolence
inaction & sometimes by
mania - very frequently by
repeated bleedings -

The oil is supposed to be for
the purpose of making of bones soft
or brittle - but this does not seem
probable, as it is contained in
cells -



The al^t an an^l M^c thinks
is of great use in binding muscles,
decreases to an abn^l an^l but is the
greater firmness. The use of
of f. in the testis &c. are entirely
found out to be impossible
of all manner. for if this be
taken away, they may
be drawn out to straight tubes.

The use of f. adipose membrane
is chiefly M^c thinks to give
shape & figure to parts. It
may perhaps be likewise to keep
up the heat of the body - for we
see it in males & in an^l it is fine
in cold climates, there is a
great quantity of adipose membrane.
but M^c thinks it rather doubtful.
It may be M^c is of opinion
to prevent the more taking of f.
of body



Sept. 2nd

of the Muscles in General.

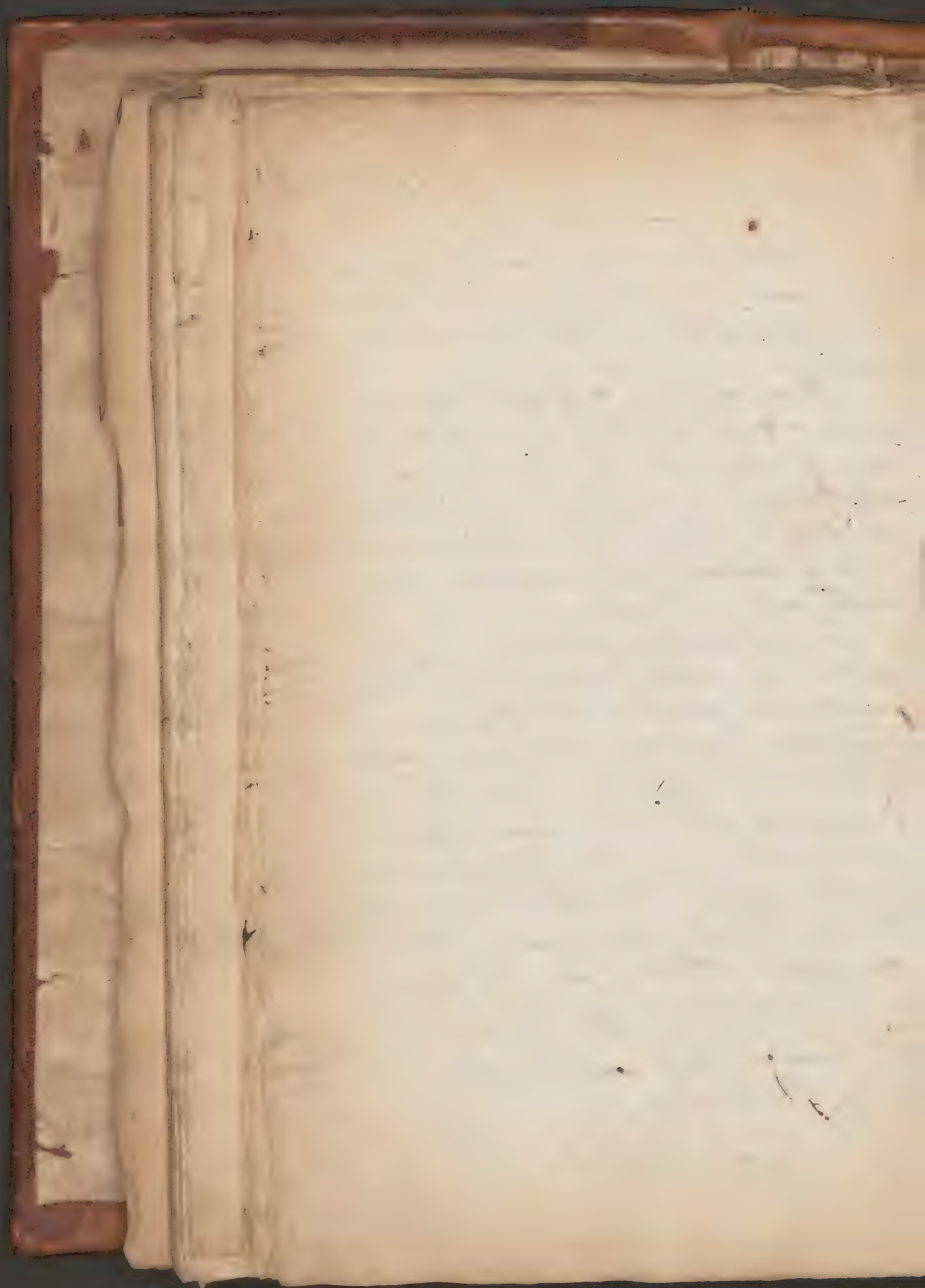
All of most vital spirit
are said on by muscular powers
as respiration - Digestion - of circulation
etc.

It is alw^s a difficult matt^r to
give a definition - We shall hard-
ly say of muscle of. it is a fibrous
subst cap^d of contraction - It has been
said red - but this need not enter
into of. diffinⁿ as muscles are som^t
with any red color.

In muscles of. have shown actⁿ
action, of. color is very red - and
paler in proportion to want of
strength of action - when of. blood is
taken out of a muscle it is of
of. same color as bone & all
muscle - In fish, the muscles
are gray & found white but they
have exactly of. same power
of actⁿ as red ones.

The body is greatly clothed in the
so of. it is of. gen^l. parities as it were
of. body - and ~~as~~ partly gives the
body its shape.

The muscles are as if were
only appl^d to each other, but
connected with each other - all
the cell^r muscle is a good bond
of connection - betwⁿ all of. muscles.



of the body - but there is also another
connecting substance, call'd
tendon - Some muscles ^{are}
are connected with the skull
but loosely at the sphenoid - Others
firmly at their extremities -

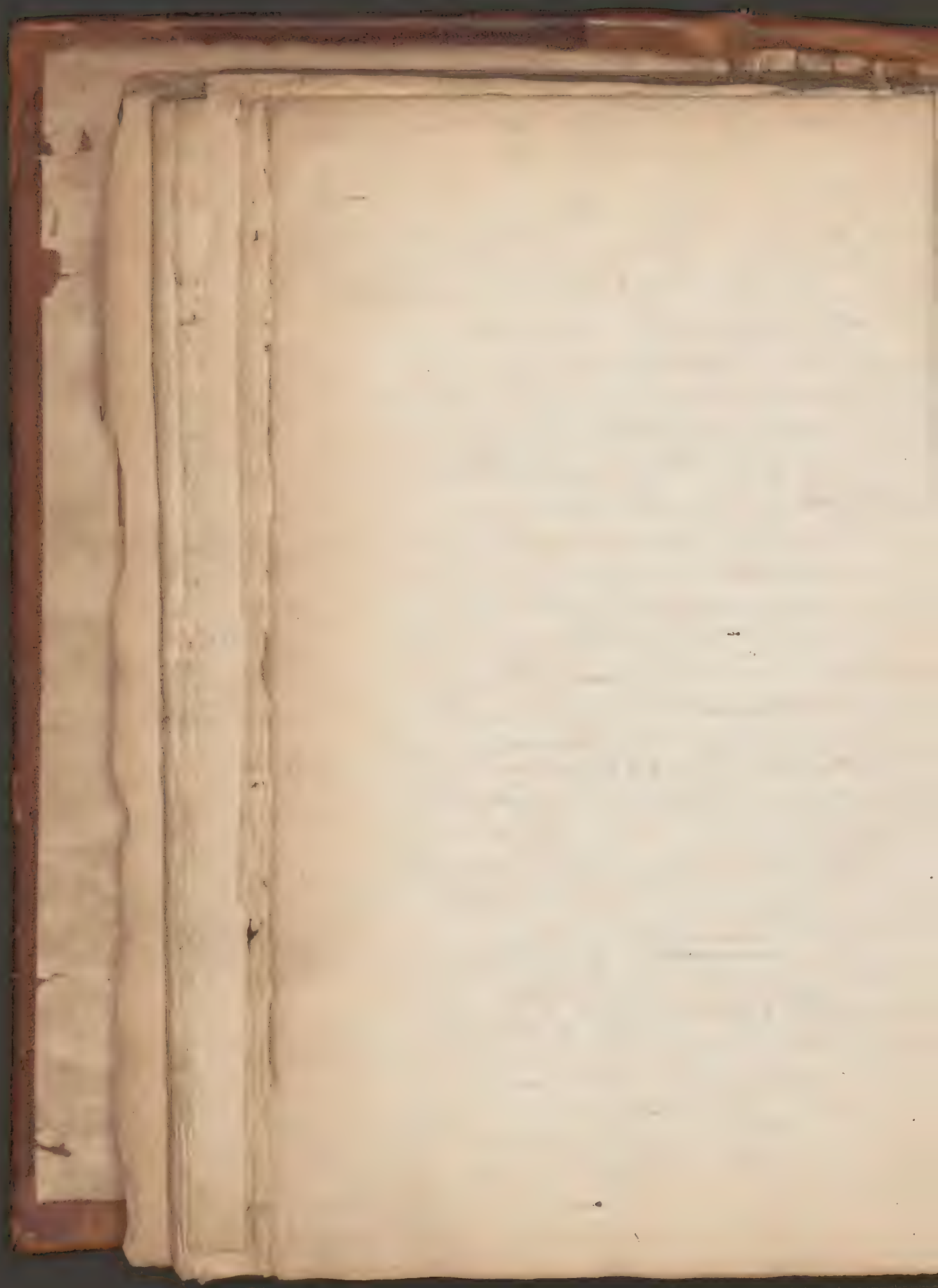
The shape of the muscles is very
various. Some being oblong &
of the shape of a sword, some
as of a rhomboides signified, for
example - Others radiated, as
the deltoid muscle & many others
of the larger ones as the pectoral
muscle &c - Some muscles have
an even edge others jagged, the
latter are call'd digitations - as the
major anticus - & others are
circular as the intercostals -

Some muscles are oblique
The depressors of the scapula are call'd
semispinalis & levator -
according to their position -

Muscles surrounding cavities are
hollow & thus call'd hollow
muscles -

The names of the muscles have
been given from their shape
or situation - as the pectoralis
& deltoid muscle - The backlean
is so call'd from its having
a kind of hump -

The use of the muscles is
very different in different people
for there are some that have
muscles not essentially necessary



muscles, such as the pyramidal
of the abdomen &c.

The covering of muscles is
chiefly made by cellular membrane.
In the muscles of the arms & legs,
the cellular membrane is so thin that
a person who was not acquainted
with the look of muscles, would not
know there was any, or but
it may be known from their
not looking rather opaque & not
of a bright red ~~as it is~~ w^h latter app^r.
is present in healthy muscles.
When the cellular membrane is removed

The appearance of the muscular surface
forms a covering for the muscles, but even
then it is surrounded with cellular membrane.

The blood of vessels are
extremely numerous. Besides
art. & veins, muscles have their
absorbents - as we see in the heart
diaphragm &c. - Indeed it is very
evident that no cord of muscles can
be formed without absorption
taking place. - They have also
nerves, in some muscles very
large, as those of the eye, diaphragm
&c. in their small

The muscles are not always
attached in the same manner
but very variously. All indeed
if it is necessary, is of the action shall
be produced for when this is
of care of attachment is perfectly



in material - I am not sure
find more extent of muscles,
than a gang of tendinous, fleshy,
while their other extent are
tendinous - such as the palmar,
longus -

The fasciculi of muscles are
same as in a bundle of more distinct
These fasciculi are connected by
cellulose membrane - Thus fac-
ing is not capable of seeing
in red muscles

It has been said said if any
ultimate fibre is 46 times less
than a globule of blood - 100,000 times
less than a grain of sand - and 500
times less than a hair of the head
in diameter - but such cannot
be an ultimate fibre, as it is
further divisible & subdivisible
in J. minute - Indeed all
these could only serve to inform
us, if they are very small

There are few or no blood vessels
in the interior of the tendon
but with cellular membrane

A tendon is a shining fibrous
substance with a corrugated
appearance, & is distinguished
from nerve

2. same as in 1st of. capsular
ligament of joint

Tendon is genly only at one
extremity of a muscle - as in most
of the muscles of the fore-arm - but
occurs at both extremities

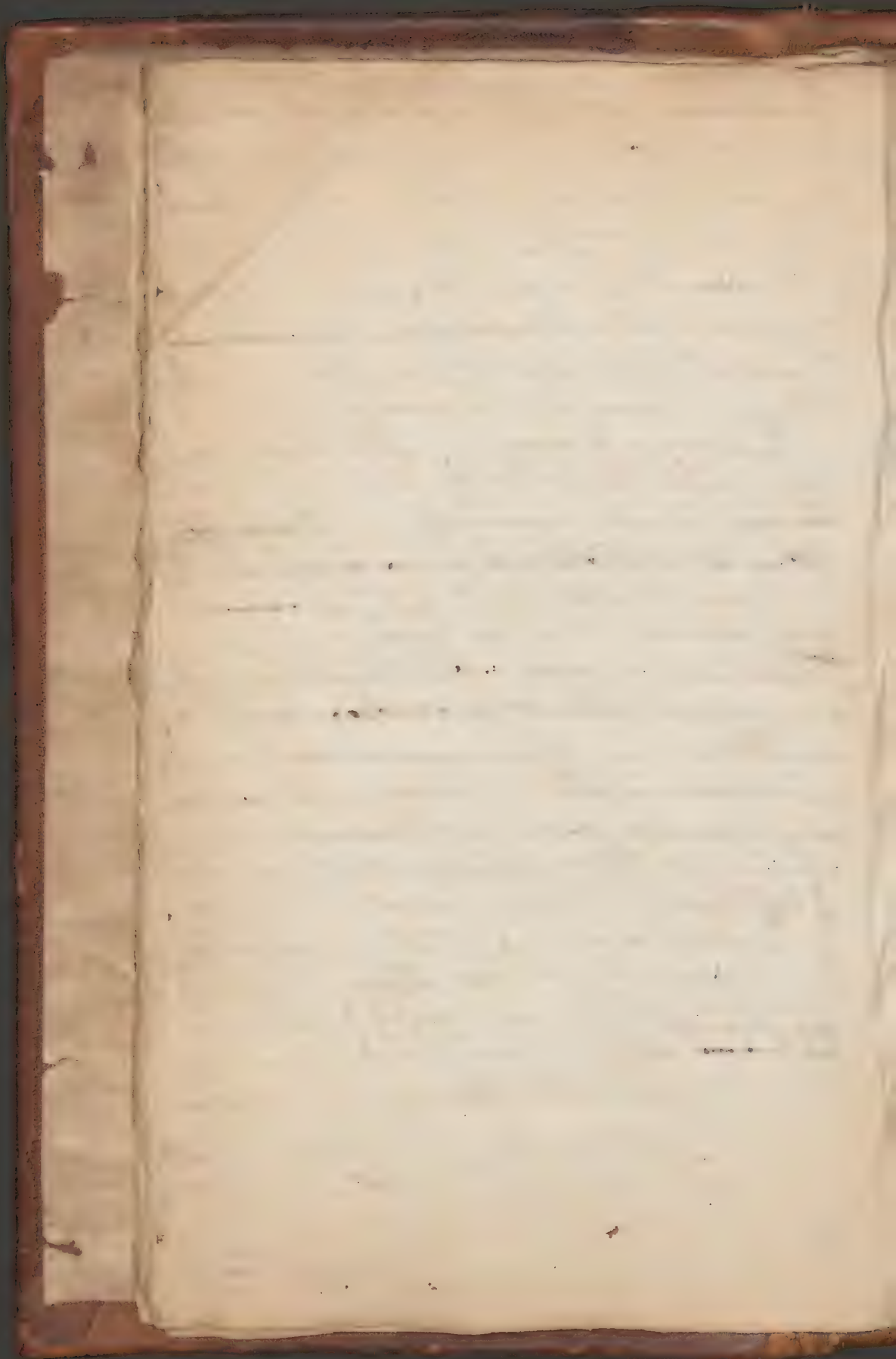
Tendons are genly connected to
the extremities of bones - ~~but~~
Tendon. fibres frequently decussate each
other in various ways

Tendons have a cellular mem.
principally between muscles for
their union crossing

~~They are not attached to the bone~~
Muscular & tend. fibres ~~join~~
very often into each other and
afterwards soon after their junction
are lost in the ~~bone~~ bone
and then - If the muscular part be
not terminated in bone, a much
larger surface must have been
required for their attachment, and
if diff. parts of the body of course been larger

Tendons are entirely insensible
in a sound + but are extremely
sensible in a diseased state, for
they appear irritated by a very
slight application of them in a sound
state

An aponeurosis is a kind of aponeurosis
as the aponeurosis of the biceps; and
these are a kind of ligaments
which bind down tendons, so as to



make of muscles act better, and
preserving of shape of of heart

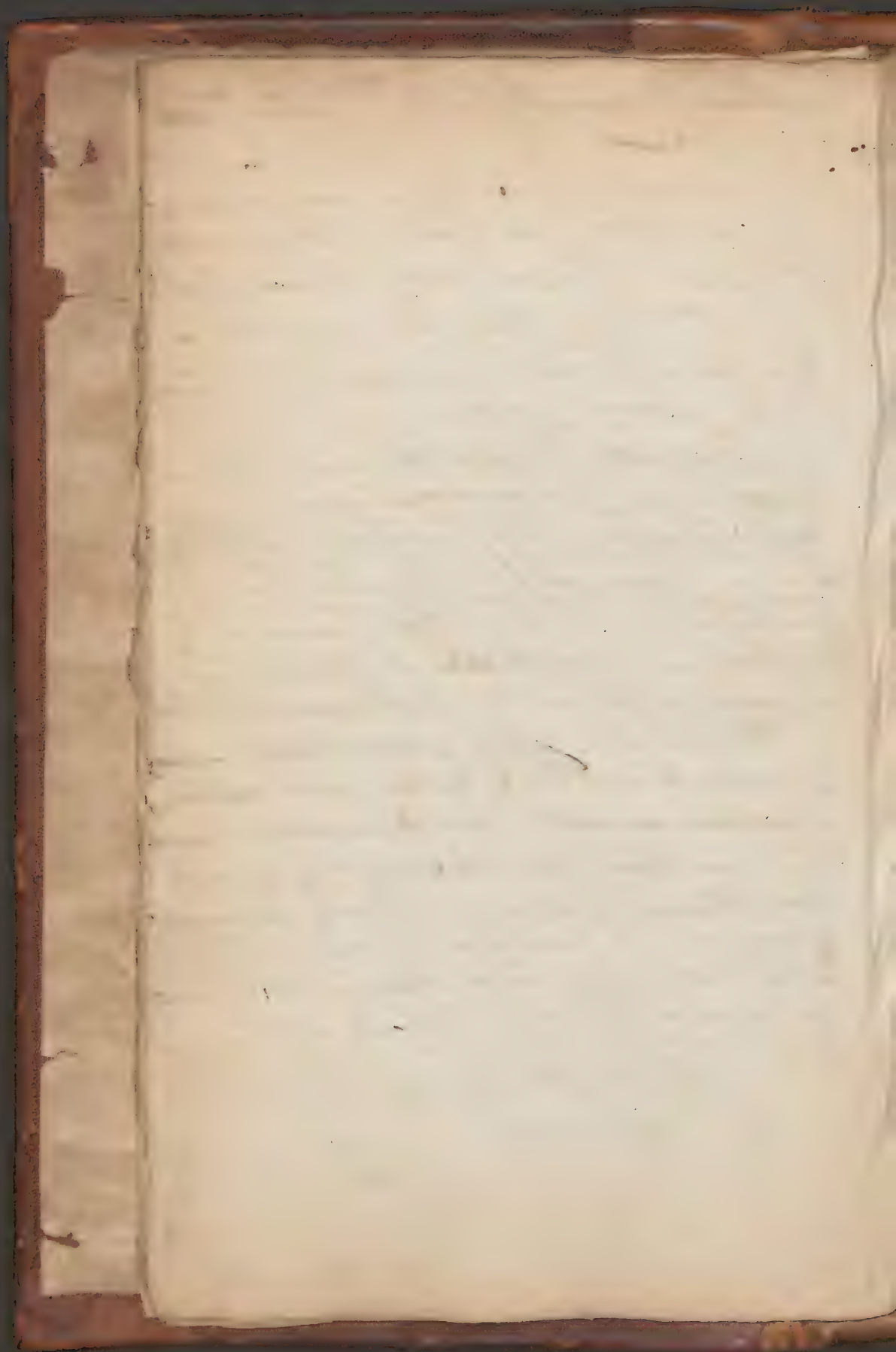
Fascia is nearly of same as
aponeurosis, except of it runs
from bones to muscles - while aponeurosis
runs from muscles to muscles -
Fascia indeed is more shining
than aponeurosis

Bursa & Mucosa are little
bags lying ^{any} tendons going over
hard parts - They contain a fluid,
& are generally situated on of
outside of joints - The perities of
bursa mucosa are of thicker
& redder kind of cell membrane

There is only one bad muscle
in the body, where there
is fully made for of tendon, as
it is in the trochlearis of of eye
but there are in others, horses,
of bones, & serve of same
purpose - as of tendon in horses
running over of pulvis

Of Muscular Action.

The action of muscles is exerted
in of red heart only - The strength
of muscles depends upon of length
of its fibres - Thus of muscles of

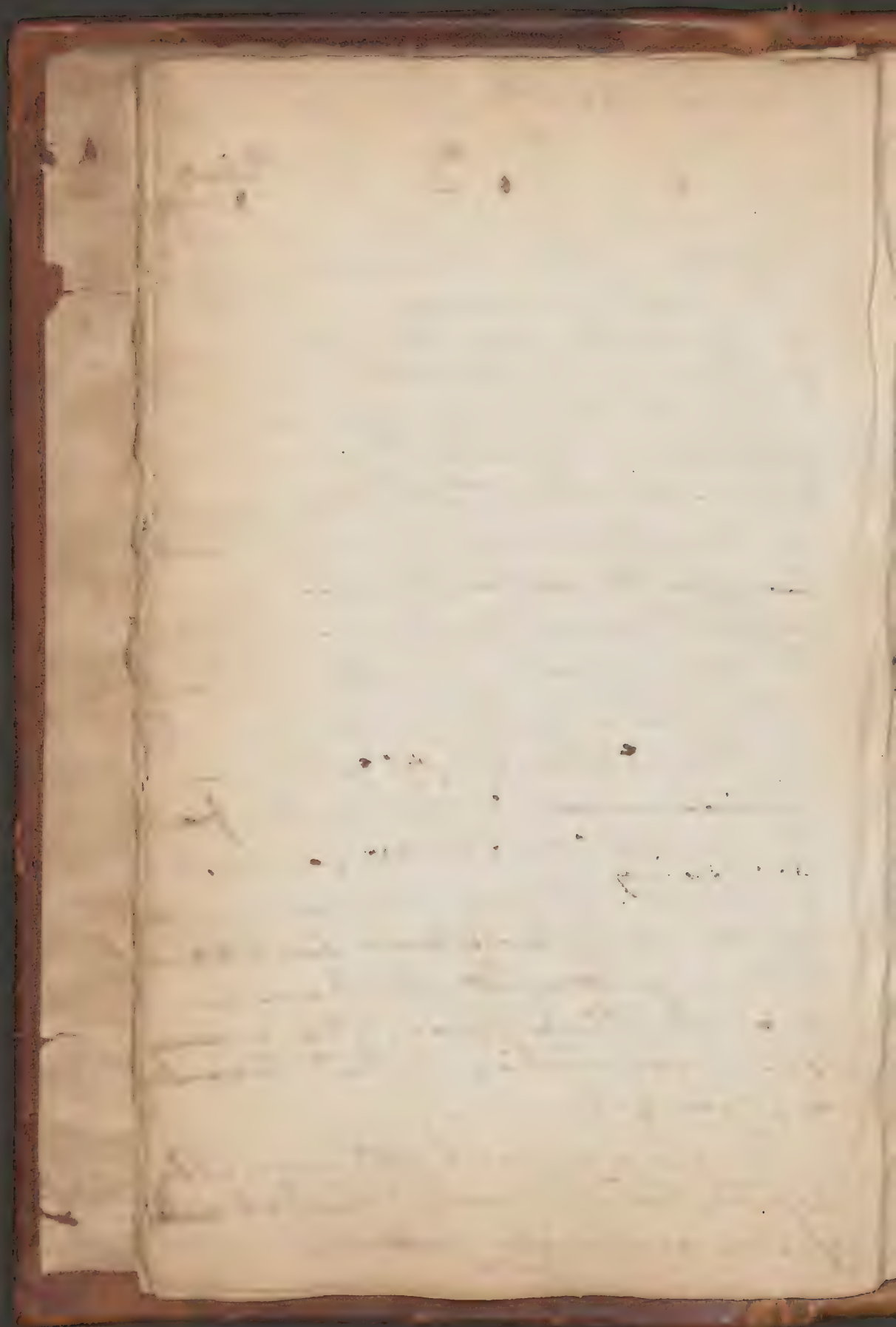


of lower extremities are large - and
their fibres long - ^{they} when ^{entirely}
muscles contract, ^{they} become ^{entirely}
and smaller in their gen. bulk -
but larger in their transverse diameter -

The contr. of muscles cannot
continue for any length of time
for if power be exhausted -

The action of muscles seems
closely connected with the nerves
for we perceive ^{voluntary} action of muscles
by the influence of mind and
we also the involuntary action of some
is produced by impressions made
on the senses - This action
appears to be a power inherent
in muscular fibres, and in
~~agood measure~~ independent of
the nerves, in those animals
w. appear to have no nervous
system, as of. Polychaeta, leech &c.
but in quadrupeds who have
nerves, there appears to be a very
strong connection betw. them
& muscles -

The quantity of contract. cannot
possibly be determined - but it certainly
is extremely great -



As a muscle cannot long
remain contracted in a solid
state, a relaxation must of course
follow. These contr. & relax.
succeed each other very quickly,
as we see in the action of the
heart. We find if when a muscle
has started itself somewhat ^{relaxation} ~~relaxation~~
of heart must in action to this all
a contract. in another heart
it was left in action, it is
alternately kept up in the
same muscle so as to
occasion a tremulous
motion.

Muscles, when ^{un-}accustomed to
action, lose a consid. share of
their power in action, as we
see daily —

Lecture 25th Muscular Action cont.

We have said of I. that power
in them had never been ascertained
for we find it. They acquire consid.
strength by constantly acting.

It has been a question among
Physicists whether of absolute, or relative
strength of muscles, was greater. The
former was to be found in levers, and
of muscles as levers act as the lever.

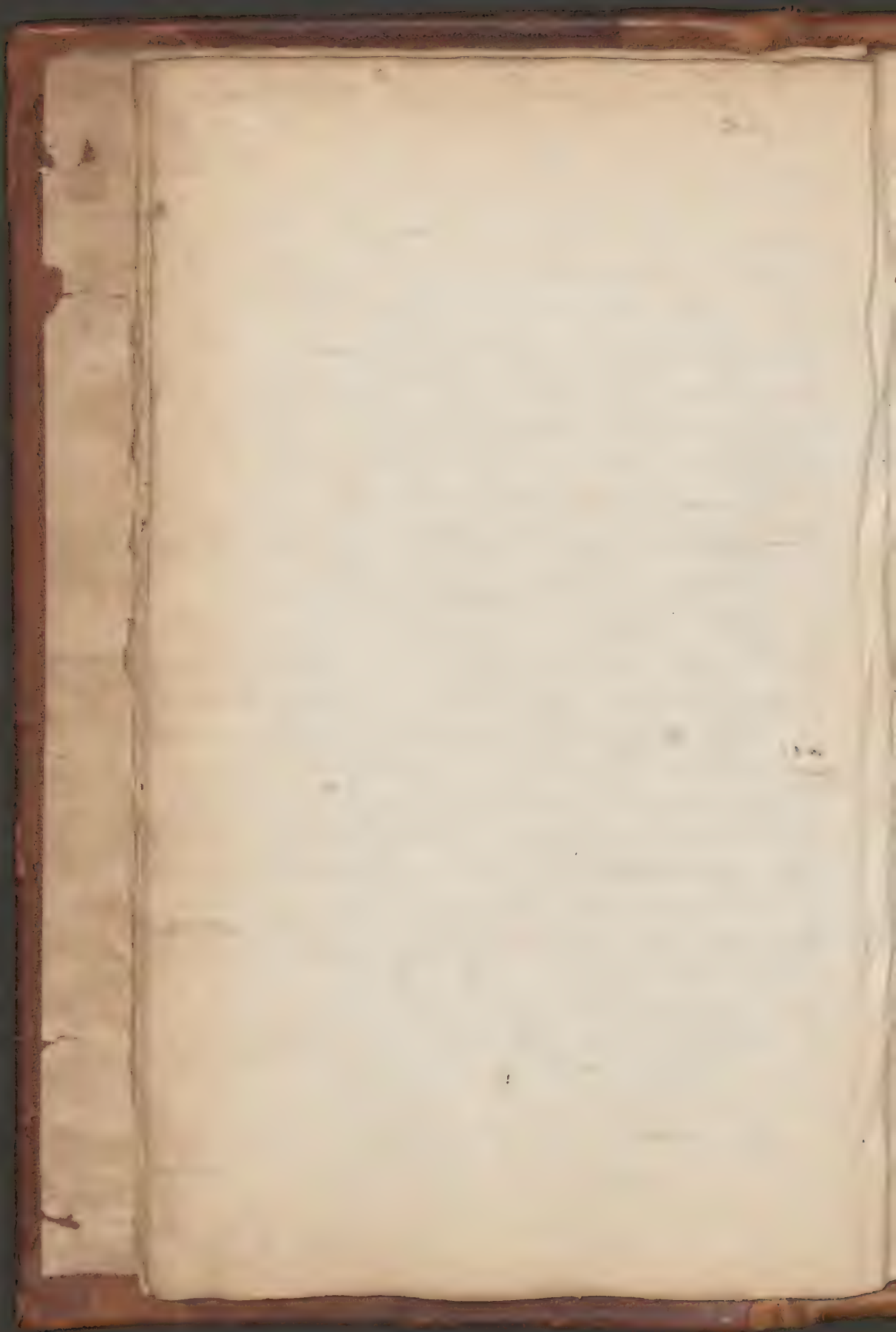
Handwritten text in a cursive script, likely from a 17th or 18th-century manuscript. The text is written on aged, slightly stained paper. The script is dense and fills most of the page. There are some dark ink smudges and a small, dark mark near the center of the page, possibly a correction or a stain. The text is written in a single column, with some lines appearing to be part of a list or a series of connected thoughts. The overall appearance is that of a historical document, possibly a letter or a journal entry.

In the motion. Prod. of force
of power has a greater opportunity of
action. I further it is free of influence
For this reason muscles are
very much united near joints. The
quantity of motion in the extremity
of any limb, is in proportion
to its distance from the centre. There
are therefore a great many more
muscles in the hand than in the arm.
The muscles of the hand are
of a great quantity of motion prod. has a
more powerful effect.

It has been a question whether
muscles were always in action
or not. There cannot be a doubt
that they are at rest days
of time no motion is produced
The variety of actions of muscles
are extremely numerous. Every
muscle is capable of prod. motion
in different directions. It is attached, however,
to different parts of the movable part.

The variety of muscles will
depend in a great measure on
whether they act by themselves or
in conjunction with others. Thus
by itself it can prod. one motion
and by joint action of another
muscle can prod. another motion.

The variety of action depends
also on the size of the muscle. Thus
one size of the deltoid in horses
runs over a course of bone has the
action hardly equal to strength of its



Q1 The bones of young animals
are naturally redder than those
of older ones, owing to their
being more plentifully supplied
with blood vessels —

a) Bones are more compact
in the middle, that they may
resist y^e force applied at their extremities.

Q1 The color of earth of bones is united
with phosphoric acid, & till this is
removed, ~~stop~~ though it will not form
sediments, ~~the~~ ^{the} ~~rich~~ ^{rich} ~~acid~~ ^{acid} —

Oct. 26th Osteology.

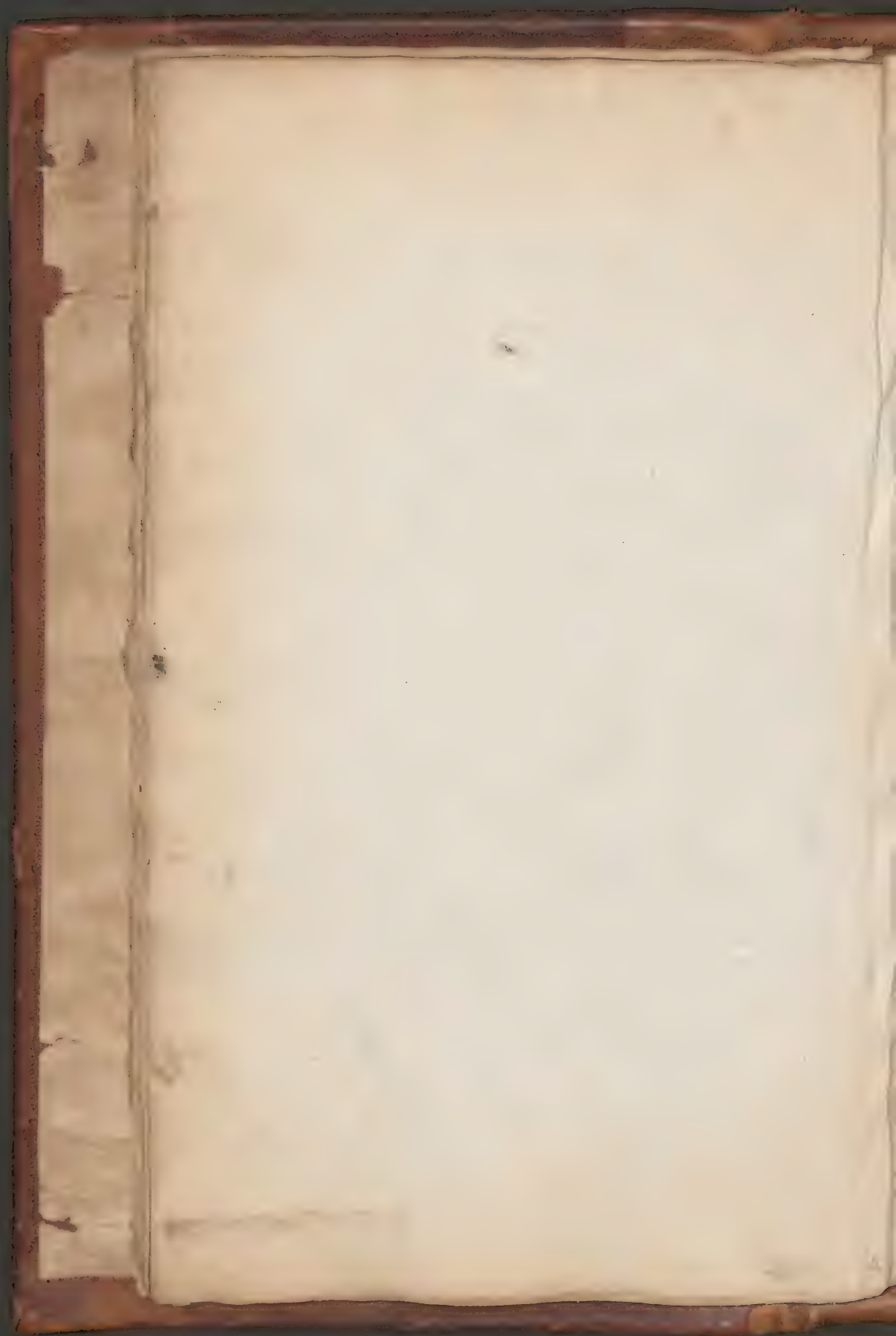
The bones give great stability
to joints and the surfaces of
muscles may act on them.

The color of bones varies, aged
bones are yellowish, & the interior
is red. In the middle the bones
take their color. It has been
said that if bones become an iron
black but this is only before they
are deprived of their carbonaceous
matter. All bones appear white.

Many bones are crandier
than others as the ribs, vertebrae
& skull. They are porous. Under
the microscope.

Small bones are very thick
of them much thinner.
A bone is a fibrous substance
in which the bones have been
longer in being in the bone
a part of the bone is called
Bones are compact on the outside
and have given a cellular texture
on the inside. The pores of the bone
appear as small holes. The porous parts
of bones are called canulli.

There are canals in bones
that receive nerves & blood.
The pores are slightly, & ~~oblong~~
and smooth.



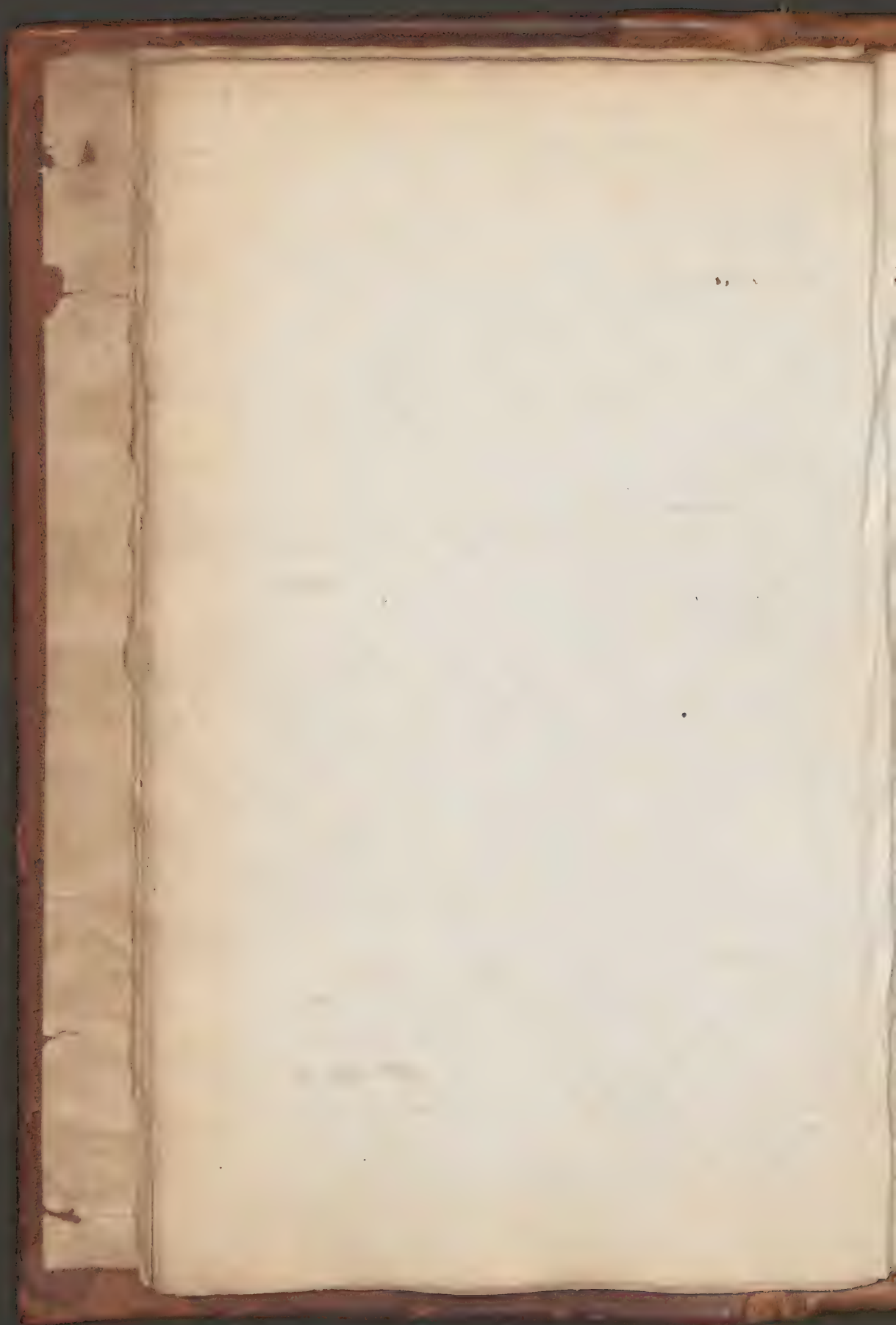
Some bones have considerable
sinuses & pores, more it contains
in marrow or of granules, magnifying
etc.

Bones are much less vascular
than soft parts in general but
have a double system of vessels, the
one of which are ramifying thro' the
inter substance - Young bones
are far more vascular than
old ones - The reason is obvious
for ~~the~~ of ~~the~~ ~~bones~~ are and
be come in ~~of~~ ~~interest~~ they are, the
latter to be constantly increasing
in bulk.

One might naturally suppose if
I bones have obstructed ~~arteries~~
ligand a doubt, as Mr. ~~of~~ ~~unpublished~~
circulated them from ~~of~~ soft parts

The bones are insensible
in a sound state yet as they are
sensible in a diseased one, they
must have nerves tho' they
are not perceptible.

When a projection of a bone is
removed it is called a spur
as for instance - if ~~the~~ ~~the~~ ~~the~~
head is flattened, it obtains the name
of condyle
~~the~~ A rough unequal protuberance
is called tubercle &c.



When there is a regular edge over
surrounding a cavity it is called
a beak

Cavities. When a cavity is
regular & of some depth it is called
a cleft - if shallower - glenoid
if a consid. groove - sinuosity
etc

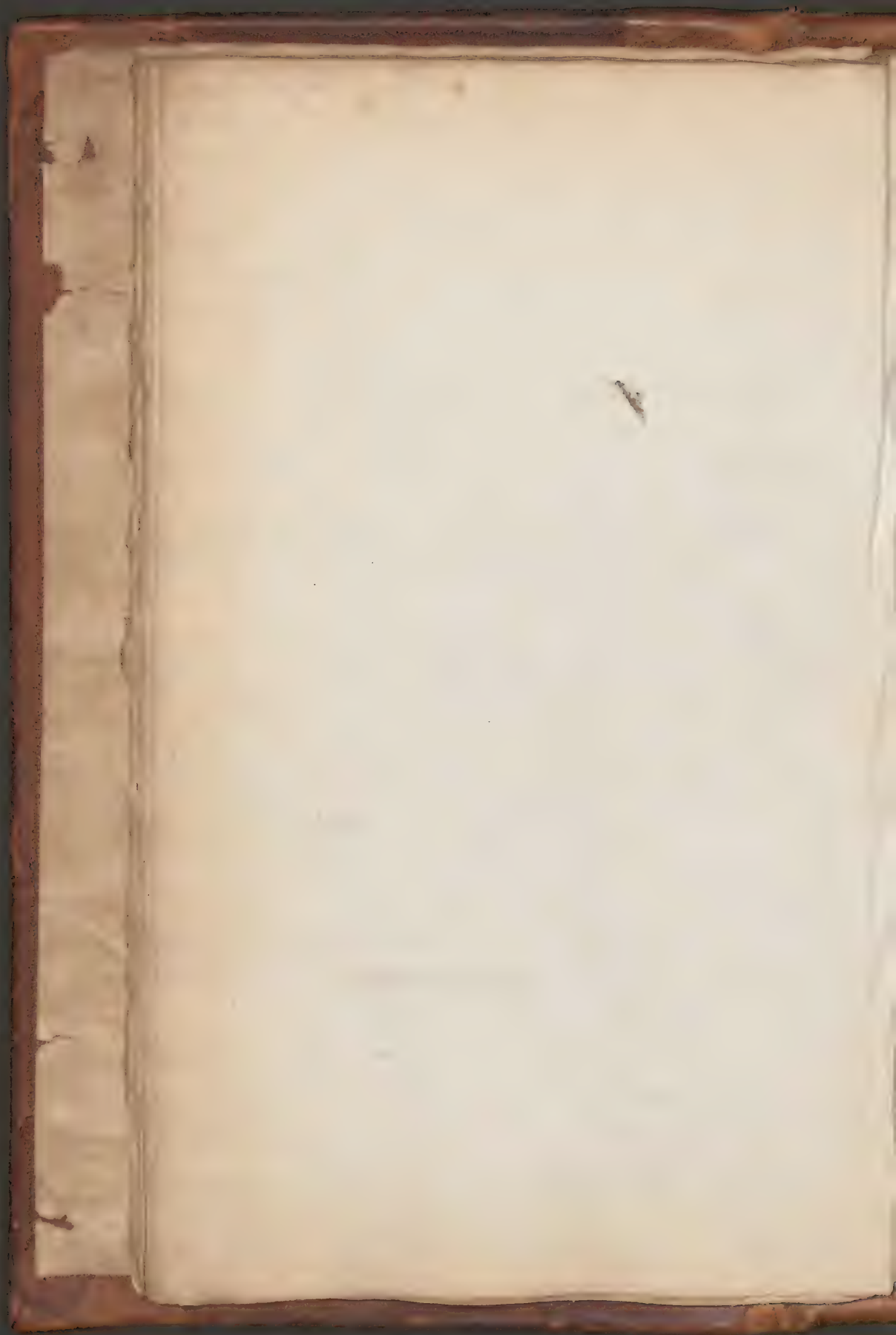
Epiphyses - When there is some
growth from another it is called
epiphyses - if growth upon a process

It has been said if epiphyses were
to continue the growth of bones but
this is not the case. A number
of other theories as if they were
a forward disposition &c. equally
unfounded have been formed

All bones were bony arising
from a soft substance & have
a shape - but it was ~~not~~ altered
by muscular action - The number
in the grooves & ends of bones
is very great

Bone is ~~composed~~ composed
generally of an animal matter
& earth - There may be several
kinds of animal matter as the
organic acid

The Periosteum is a substance
of a white colour & glutinous or
tender but approaching more



Polypus. This is a white
animal. The sublt. is closely
connected with the various parts of
the animal. It is not connected
to the original bone, but with
the epiphyses.

The Periosteum is not equalled
thick than the bone but it
grows thicker towards the centre
of the bone, gradually becoming
thinner as it goes to the extremities. The
periosteum is more closely con-
nected with the bone in young than
old subjects. It is connected by
fibres running into the bone.

The Periosteum is a medium
for the growth of the bone. It is
invisible to any inspection.

1st The High house of the
which is within the area
and is very high of the house
and the same year in bed
that fly high

All epiphyseal bones are
very thin & of a mass, which is
quite different from the common fat.
Marrow is not necessary to bones.
They are sometimes found without it.
It has been supposed marrow
was the prevent of brittleness of the
bones, but we can hardly suppose
this while there is so much
to be found in some bones,
as in the cranium, where we don't
find more brittle than the
cartilage covering of a white color
substance as thin as paper
but as ~~the~~ elastic. Some
cartilages remain cartilages
for years before their conversion
into bone, as the patella. &
others remain cartilage during
life as the cartilage of ribs, &
the ~~thorax~~, tho' there sometimes drifts
there is another kind of cartilage
at the end of bones. Some of it
is loose as in the intervertebral
of the spine. Blood vessels are
seen passing thro' the edges of
cartilage bones, & few in the middle
part. It appears to be perfectly
insensible. Its substance is soft
elastic to give way to the weight.

1a1 The creations of the house of

2^d Lig. of the body

Ligament very much resembles the band. It is a substance to be done joining bones to bone while the band joins muscle to muscle - or muscle to bone - It is not so shining as the band - has not of glistering appearance - It is like the band insensible and has also had few blood vessels -

Intercostal ligaments are such as the round ligament of the thigh (a) Perhaps there are many to be considered & strengthen on the same ligament and they do this has led to the first the second in their action - rather to take a part of it -

Synovia is a fluid substance which is found in joints. It is a viscid fluid of a yellowish & lubricate of parts - It is a way? by which -

On what manner it is secreted is doubtful but most probably from the surface of the membranes, as in the pericardium. In some cases there is a peculiar spot for this secretion -

(a) but larger about J. uppermost dorsal
vertebrae than about the middle
part of J. spine

nothing of f. kind is found in
the human subject

The Description of particular Bones

Of the spine

The spine makes a part
of f. trunk of f. body. The ~~trunk~~
consisting of f. spine ~~trunk~~, &
pelvis

The spine consists of a number
of bones in reason of it will be
presently explained

~~The spine is not a straight
line. It bows, but is a little
curved, projecting a little forwards
at f. lower & upper part. It is
composed of f. vertebrae & f. sacrum
in size very considerable when it
comes to f. neck. The process of
f. vertebrae of f. neck are more
anterior than those of f. lateral
ones of f. thoracic vertebrae. The
process of f. neck are shorter
than those of f. lumbar, & tipped.
The spine consists of lumbar
vertebrae, & cervical vertebrae.
The lumbar are 5 - f. dorsal 12
& f. cervical 7 - in all 24~~

a lumbar vertebra is rather
oval in its figure, having a longer
diameter from one side to the

of and having a conical cavity
in it ~~as shown in~~
the middle part is spongy
that of a ~~different~~ ~~very~~ ~~little~~
united and has an ~~aspherical~~
all round of a ~~form~~ ~~as shown~~

Its anterior part is not protected by
a no. of *proemia* It has
4 ~~anterior~~ *proemia* & 2 *transvers*
& 1 *spin.*

The ² optical principles are placed at a greater distance from each other than of Clouds acting together, and are larger. — The larger art of microscope are nearer each other, as they were to be.

The spinous process arises from
junction of 2 articulated processes
a remaining and perpendicular
body of 2. lower

The hanging precepts are
from Josephus article & precepts
beginning p. 7. smaller

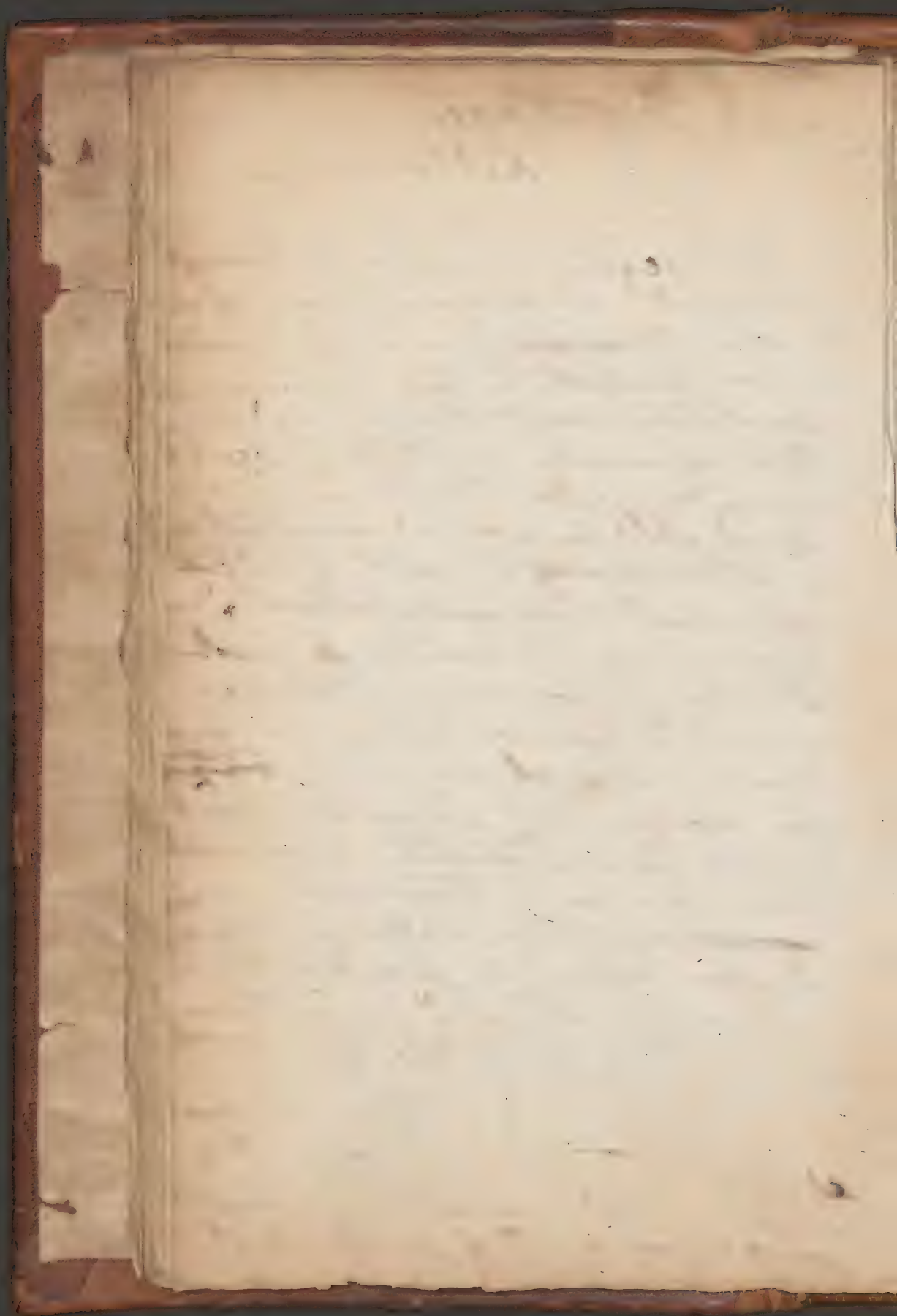
Thus a large Caraman is
 between *f. proceres* & body of *f. bon-*
 made partly by the deficiency of
f. body of *f. bone* & partly by
f. no flow made by *f. junction*
 of *f. proceres*

and the quantity of muscle
on these parts, etc.

Page 98 (Physiology
of the Skull)

The skull is only to be
considered as a case for of-
fense ~~and~~ for a of brain
is so essential to life, it was
absolutely necessary there
this defence — If of skull
even twice as thick as it is
it wd. state by some accident
or other have bⁿ. cap^d. of brain
The skull is not only protecting
brain by its hardness but
also by its form — Nature
seems to have taken more
than usual care of ^{brain} ~~the~~
for we find it where it is most
liable to accidental violence
it is in gen^l. thickest, & in
~~on~~ on the sides, where
the skull itself is guarded by
sev^l. circumstances as 4. projection
of a part of of orbit &c. This much
thinner for

In of form of of skull, it was
necessary for it sh^d. soon be
affected & answer its intention
and thus of indication is con-
firmed as at a n^t. of points that



be completely good.

The use of the sutures is very doubtful. There have been many opinions respecting it. The majority opinion of late has been that it would be of comparative service. Some have even ~~the~~ conceived the common vibrations to of other parts but there are many objections to this for we are constantly finding sutures perfectly justified.

The situation of the head is at the right part of the body for various reasons - ~~We find that~~

The eye for instance is higher it is placed & larger in the sphere of vision than a person who stands on an eminence sees ~~the~~ farther because there are no bodies w^h obstruct vision for it is well known if a series of light run in straight lines, any opaque body will obstruct them ~~in view~~ in view for they will not revolve round such an obstructing body.

The spine it may be regarded as a support on the basis of strength - this ~~the~~ ^{the} have not only not to them can make

(a) Had spine been
perfectly erect & not curved
in the middle, the soft
parts must have been
advanced forward & by
of line of support —

... each ... also to the
ligaments which join ...
to that of excellent structure of the
spine, being composed of so large a
no. of bones, that we have the
in fact? There are? have been
great strength & motion together
of it was proper the ribs are
are a large motion, as they
we? then have interposed the
their action —

The processes of the spine seem
very judiciously adapted to each
other, so as to limit the motion
backward? — The transverse
processes are chiefly for the
attachment of the ribs

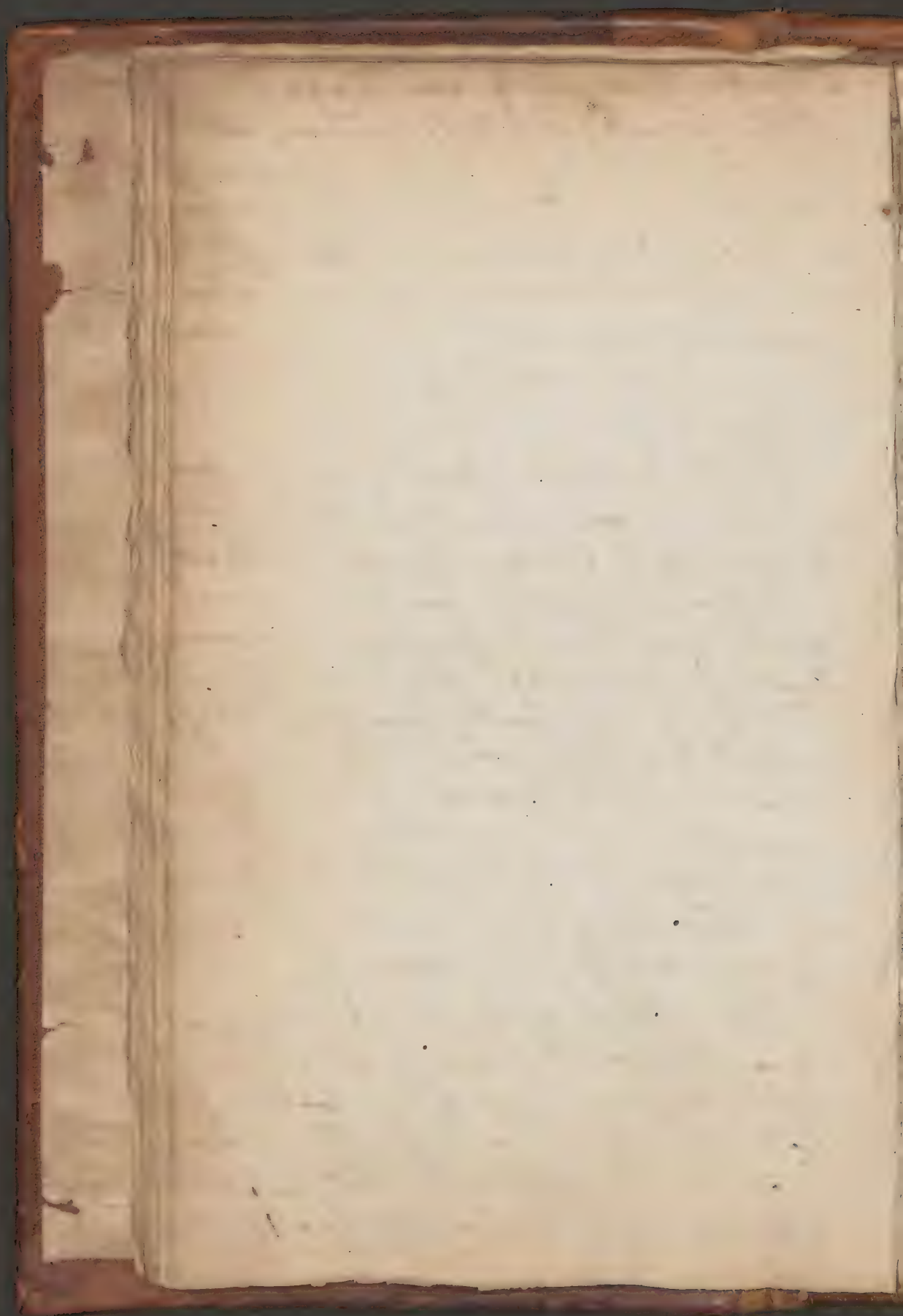
The thorax is properly made
narrow at the upper part, of only
of windpipe & oesophagus. but
it might just have room for
just thro? The Lancians of the
ribs make of protection parts
much more fixed than they
otherwise would have ^{been} and
yet to allow a suff. quantity of
motion — The lower ribs have
greater motion but only at the
one extremity and have

(a) The *praeputium* is very advantageously
situated with a sacristy & pl. in a good
position - from both it has all
of manches -

a large quantity of cartilage —
The necessity of a deficiency at
of Cart. Lach. p.p. trunk is, very
evident as if ^{stomach} uterus &c. were
be allowed to distend — Had it
been otherwise many other
inconveniences must have
ensued as want of motion in
f. ligula &c. —

The Pelvis - Had I. axis of
 f. pelvis corresponded to
 f. axis of f. body, if soft parts
 had been well supported
 and could not pressure have
 been f. corresp. but owing to
 it being in a nearly perpendicular
 instead of a horizontal line, this
 is prevented & over c. The
 muscles have acted in the
 direction of the blades, uterus
 &c. Had they been in c. in
 f. bones of f. pelvis -

The upper extremities, are
 advantageously placed at the
 upper fore part of the body -
 had they been placed further behind
 it, some w^d not have been enabled
 to circulate so large a load of a

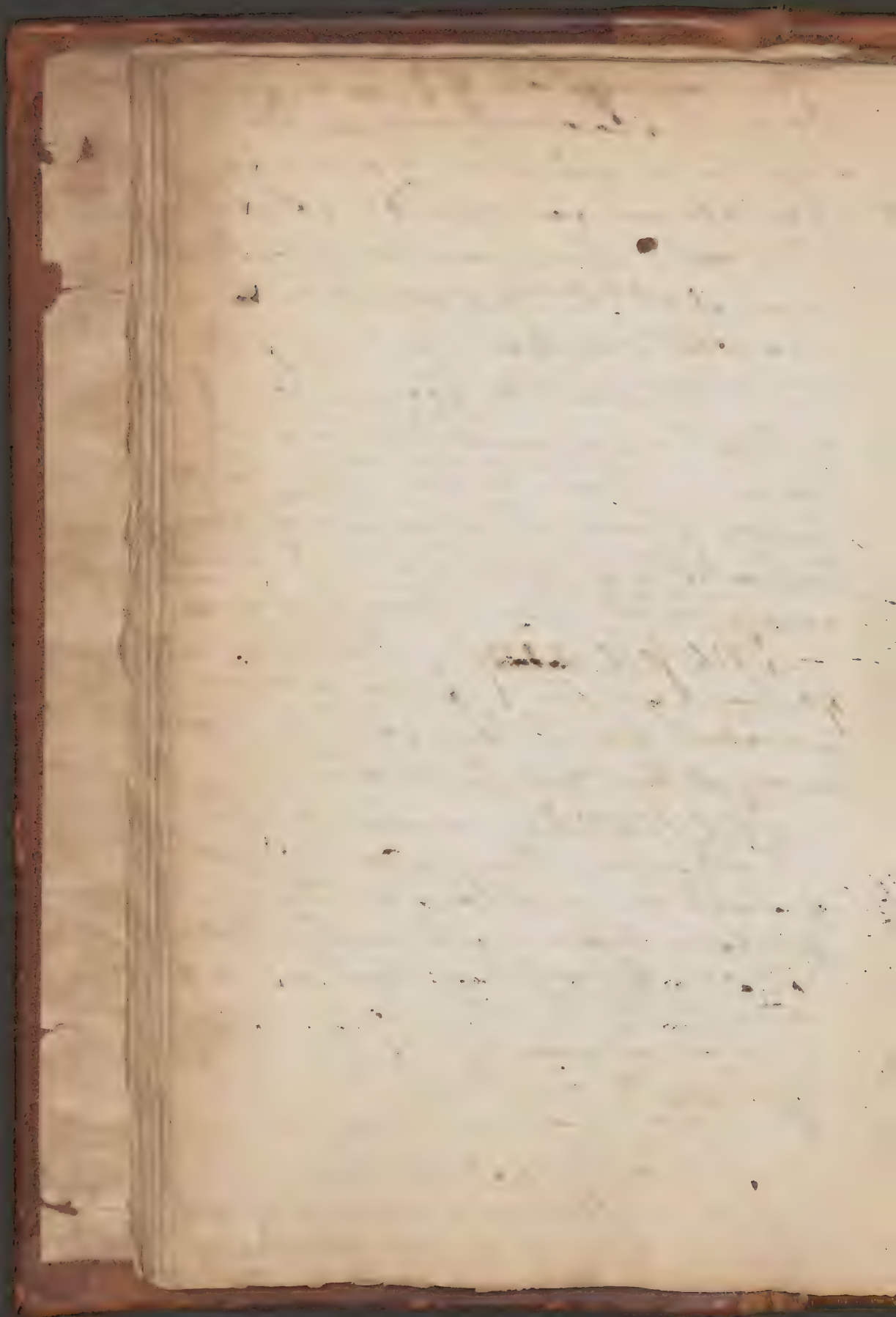


The connection of the scapula is of the same kind as the scapula is of the humerus, and the joint has been in many cases separated when ever any violence was applied to the arm in a straight direction (as in falling on the hands forward) & retraction must have been commenced. The humerus & have given it a considerable shock but not of the scapula but of the coracoclavicular joint. This joint is not a

The fore arm — The use of the bones in the fore arm is evident from the length of the radius & ulna & the position of the

The hand is composed of 27 bones — Thus a considerable range of motion is allowed — The fingers have not only the power of grasping, but also of extending — Both of these actions are of great advantage — The palm of the hand is turned to each other, for various reasons —

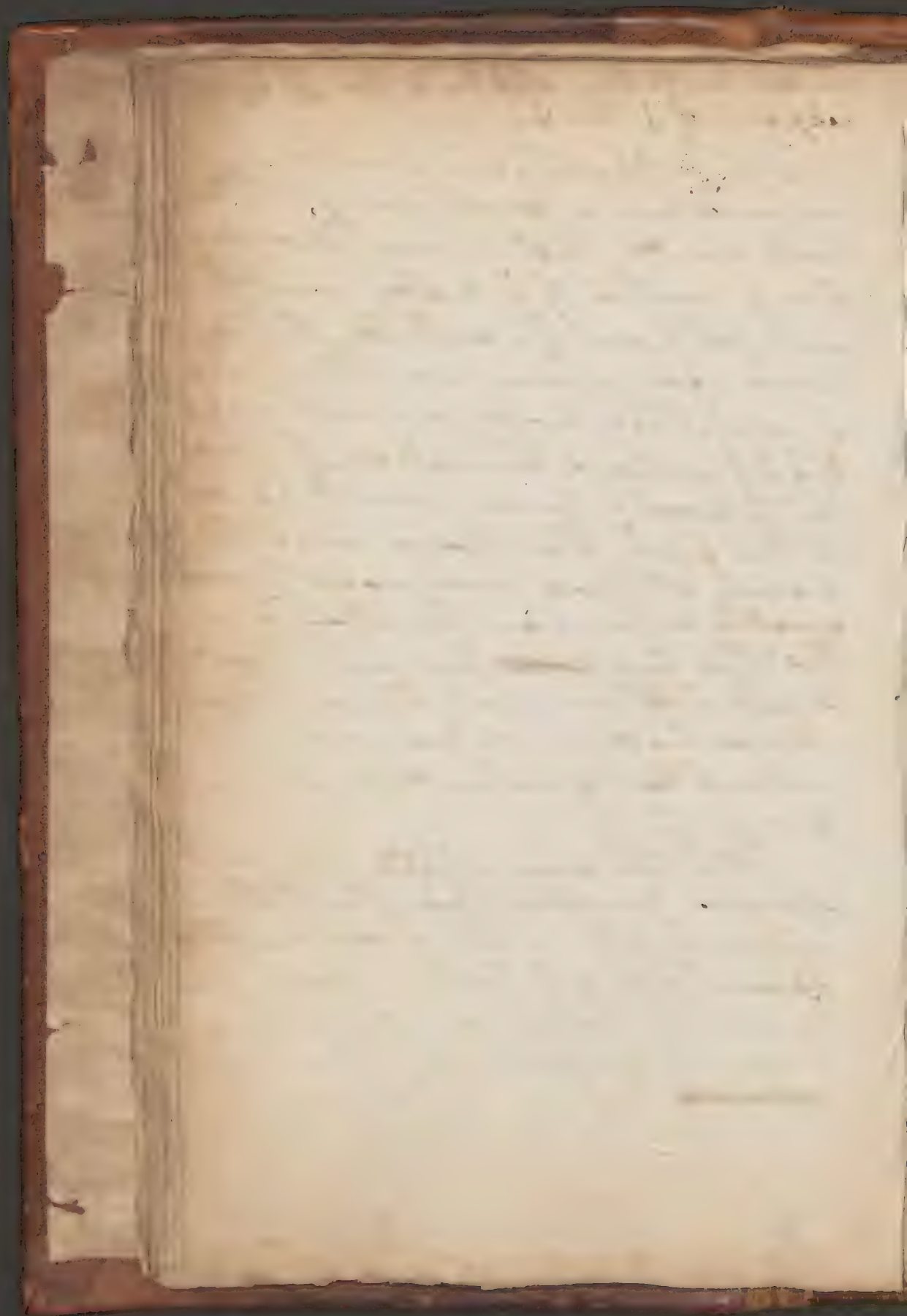
The lower extremities — The thick bones are placed obliquely to the line of direction in walking



may be better applied to of equal support of f. body —

The Legs are placed in a perpendicular direction for the thigh bone, that a line drawn from f. centre of f. body might not fall on f. outside of the bone, for whenever this is f. case, the body must fall. Had f. oblique direction of the thigh bone been continued down to the feet, the bone must have b^een too narrow to enable a person to stand — tho' the leg ~~is~~ has an pron^o & supination, yet there is an advantage in 2 bones, of support being greater & more firm —

The Feet are placed in a straight direction for the better support of f. whole frame. The advantage of f. toes is very great if we consider ourselves as wearing no shoes (we certainly ~~are~~ Nature intended,) in grasping convex bodies — This advantage is now taken away by artificial covers of shoes; but it's a question whether we do not gain as much by having our feet f^ree.



and the shoes, as we sh^d go of. if
walking more safely, if we had more

Lecture 29th Ostrogeny

It has been said of cartilages are
converted into bone by age, &c.
but this cannot be of cartilage, for
if so, all of cartilage in the body must
~~become~~ undergo this change
before a certain age. Others have
said of of perichondrium form'd bone
but this is not the case, except there are
arteries affected by of. more or less
in it. I have seen it at an earlier
stage of formation than bone by tubes,
but we find no such apparatus
indeed with evidence of bone is
form'd ~~from~~ at a dist^t of perichondrium
of. must be in its essential to
its formation.

That late Dr. Mead thought of
bone was form'd by artificial
& muscular action that this could
be, for bone is form'd where there
is motion.

The most probable opinion
seems to be, that of cartilage is carried
in the circulation in a fluid form
of small vesicles, and they grow
into bone by age. This cartilage
is originally form'd in a matter
of doubt - It seems however of. body
has in itself some power of
converting itself into bone.

In bones of a regular
shape there is only one center

Carby. Digestions. —

(6) In adult, this is filled up by
cellular membrane

of ossification are in the scapula. In
the irregularly shaped bones, several
as of spine.

Dr. Baillie, entirely agrees with Mr
Hunter of the inner part of the
bones are absorbed during their
formation, while fresh ossification
occurs on the outside. — The
Mr Hunter called the modeling
process.

Myology.

Muscles consist of red fibres
& tendons — the action exists only
in the former, for the tendon being
the connective as perfectly united in
itself. The strength of muscles
depends on the quantity of red
fibres.

Thoracohumeral oblique, or oblique,
descendens — attached to 7, or 8 ribs &
to 1. spine of 11. — is lost in
an aponeurosis of tendon forming
the fascia alba by its union
with the tendon of the other side.
This muscle dec. & thickens towards the
last part of the abdomen, & is perforated
by the quill by the umbilicus (6). On
the outside of the rectus muscle, it forms
a white line, called the linea alba.
Linea semilunaris.

111111

10. Cumbra acubra

35
Of the Motion of Joints.

The capsular ligament is joint to the
bones not only at the ends of the
all joints but is thickened at the
joints of the spine & some of the
of the articulation - Bands of cap. ligament
There are other important ligaments
themselves & some of them are not to be
subordinate to the main motion but only
to secure the joint.

Cartilages for their elasticity are found
in the ends of the bones for the joint for
motion than those of the hand & foot
I imagine that of the bones of the hand
is more of a toughness - Cartil. are gently
thickened in the region of the joint
as the motion is changed in the
centre of the head of the bone - In
the case of the radius growing by
the friction, a fluid called synovia
is constantly secreted. There is a
similar fluid on the surface of
tendons, where they rub on each
other.

The interstitial substance is not
absolutely necessary for joint motion
and is found in the joint - The
is cartilage - The are particularly
in the joint of the knee & the
the force of the wind joint of the
the joint of the knee & the
still of this joint the caps, one is
in the joint of the knee & the
many of the articulation in the ankle joint
is of the joint of the ankle joint
in the joint of the ankle joint
that the end of this is difficult

Articular.

Joint have common and been
divided into three parts of the
bone, first, second, third, and fourth
of which the first is the most common

~~of the three parts of the joint~~

The 3 clepts, are 1st symphysis - 2^d synarthrosis - 3^d diarthrosis

Symphysis is div. into 3 diff. species of

1st Synchondrosis, when a cartilage is there
connecting the ribs to the sternum - stops the ribs

2^d Symphysis, or syndesmosis, when ligaments
are connecting the ribs to the sternum - stops the ribs

3^d Synsarcosis, where muscles are stretched
from one bone to another as in movable joints.

Synarthrosis is divided into

1st Suture, or Arthrosis of the Ancients

2^d Gomphosis - as the teeth in the jaw

3^d Syndesmosis - when a thin lamella
of connective tissue is stretched between the bones

The ligamentous articulation in joints - we
find that the bones are not in a
great degree in the same joint

nor indeed are they according to
the nature of the articulation - it is

in the case where Nature intends
to join the bones together in a
great and fixed manner

joint - as in the mandible

It may seem singular to speak
of joints, where the bones are not
in a great degree in the same joint

It may seem singular to speak
of joints, where the bones are not
in a great degree in the same joint

The joints with motion are called
diarthroses, or

of some countries have an idea that
they look better when I enamel is rubbed
off as the negroes in the eastern countries
(b) Mr. L. does not think them harder than
I. as Pictore. Mr. L. gives an instance
of a piece of a jaw bone of a man of North of England
the jaw teeth in the jaw bone - The teeth were
not in I. last decayed, the jaw itself was
a good deal so - They were found remains
of a Roman camp, & therefore had Babylon
there 2000 years
(c) In 20 years they are going completely down,
it is very difficult to find bones. The habit
has not been complete till now & a skull of the

Artificial joints are from
either gun barrels or Turkish
cannon. These joints are not at all
perfect. They are
indeed the best resuscitation of Nature
in such cases, & almost a better
substitute than none.

Lect. 31:4 Of the Teeth.

The teeth are of the utmost consequence
in the speech of the human species:
for we find, without ^{the} ear, sounds can't
be properly articulated — In quadrupeds
they are of great importance in
enabling them to catch & retain their
prey.

All great Anatomists seem to have
been fond of the subject; for ~~to~~
Hippocrates, Celsus & Haller have
all wrote on the teeth.

The teeth differ from other bones in these
respects

- 1st - That a part of ^{the} jaw has no periosteum (a)
- 2^d - They are much harder than other bones
- 3^d - They are not vascular
- 4th - They are not more liable to dis-
ease than other bones
- 5th - That when broken they never reunite, or
if a part is cut off, it is not regenerated.
- 6th - They wear by friction while other
bones are worn by absorption.
- 7th - They have no marrow
- 8th - They are formed more quickly than
other bones

2 in w. there are five
to 1 in w. there are three

ture was guarded against the
bones being worn by friction, by
interposition of ligaments.
The effect of friction is very small
in those bones which have no
cartilages - as the teeth - but indeed
their enamel is much harder than
any other bony substance -
Oil is contained in all cylindrical
bones but Mr. Hunter observes
never been found in the teeth as he
does not suppose it to exist in any
The teeth are constantly undergoing
some change - This is the case of the
teeth of the species of fishes described
age of bones is ascertained by
jashupac

Teeth are generally found in
alveolar processes but in some
animals in the stomach itself as
in the tiger & crab &c.
The teeth are fixed in the jaws
but in some they are loose
but are capable of injection & expansion
as in the little snail & several
kind of fish.

Some fishes have 3 rows of teeth in
the jaw - Mr. L. gives an
instance of it in a little mackerel
the age of the fish is supposed to have
been ascertained by the set of teeth of the
upper jaw - 3 rows were found
which had not having been shed, when
the 2^d grew up



but that their skin being black
made them appear lighter than
they really are.

(2) The gastric juice of some animals
will actually dissolve the teeth.

as we find that if we ~~place~~ ^{put} ~~the~~
any thing either very hot, or very
cold, the nerves of the teeth are
immediately sensible of it. ~~As to the~~
reason. This leads Mr. C. to

Some have said that if enamel
the teeth of negroes were whiter
than that of white people's teeth (a)

Sub. 32. The Teeth cont.

It has been said that if enamel was
incapable of being dissolved by H^+ acid
M. L. found that if H^+ nitric acid of strength
it very considerably — that if H^+ nitric acid
dissolved a great part of the enamel
of a tooth, but only in about 9 hours.
if H^+ nitric acid in a great length
of time, ~~was used on the teeth of~~
did not dissolve the enamel
of H^+ tooth but only made it crumble
into pieces — M. L. then decided
that if H^+ nitric acid is much the best
for cleaning the teeth, as it
dissolves of Ca^{++} carbonate &
tarter, without acting on the
enamel —

(a) Whether H^+ acid has any power
of dissolving the teeth, or not is
doubtful though there seem some
circumstances which render it probable
as the enamel is of more

The nature of the teeth is very small
when they are in the H^+ of small fragments
the H^+ acting on them that of has not
yet been detected but we know it
with that (a)

In the case of seeing just the same

~~Wagner~~
suppose, if I remove the teeth are
more visible than any others —

(a) Wags have beyond a doubt if-
teeth - ash, fuffy - and Elephant
are also in course. I am seeing
shedding of 7. teeth —

It is not the matter of the teeth themselves, but
more of the manner of their use.

Whether the teeth of the tooth
has any absorbents, or not, is doubtful.
But Mr. Hunter thinks it has not. The
incisor has had undoubted
absorbents.

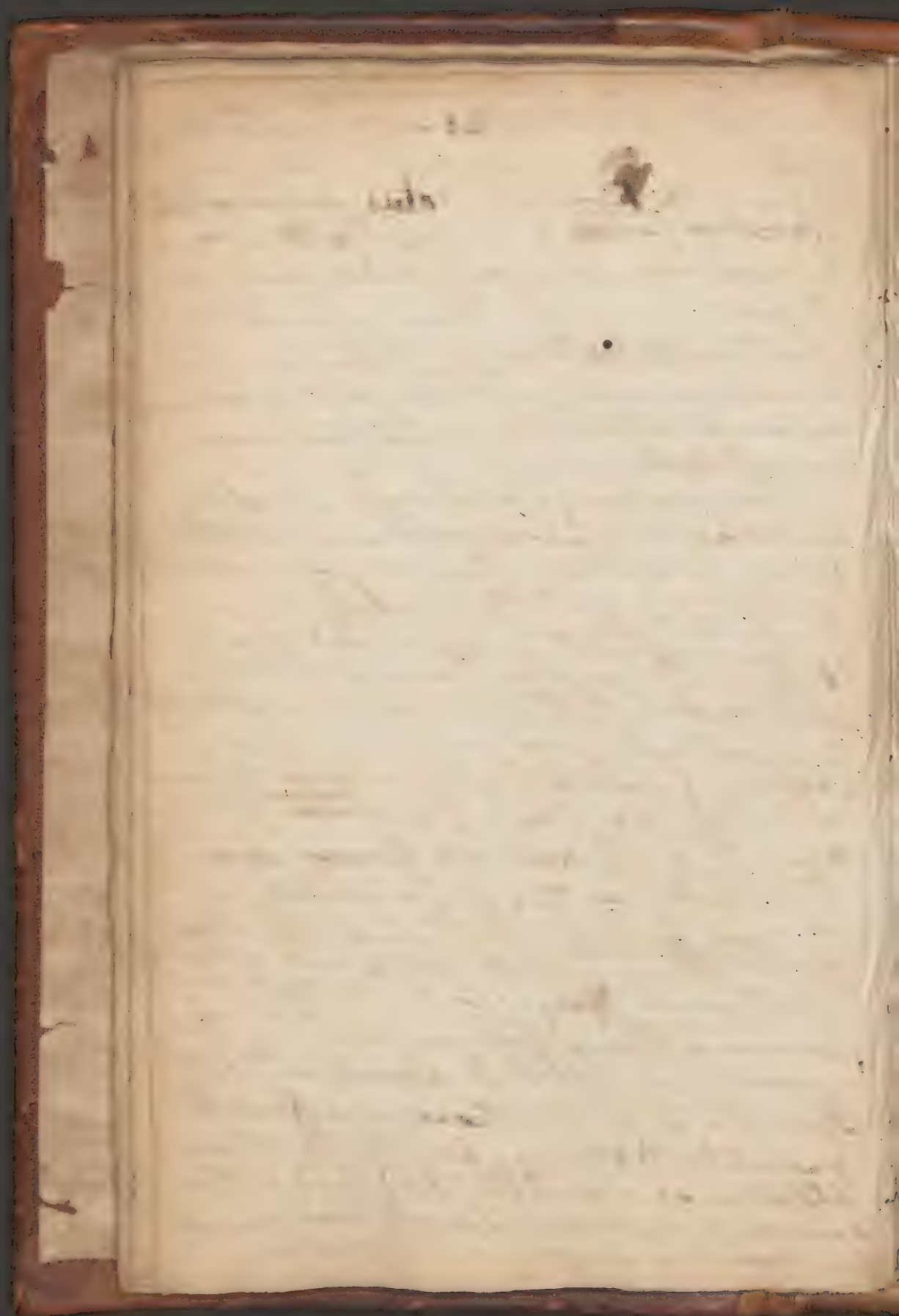
It is often happening that it is difficult
matter to tell of the teeth of the
of tooth-ach. When however this is the
case, it may at last be discovered by
applying of electric wire, & drawing a
spark of fire from each tooth; for
if it is the case of pain will be much
more sensible of the shock.

A tooth is divided into 3 parts
of body - of neck - & of crown.
The body is all of enamel
the neck is of enamel & of gums.
The crown is of enamel & of gums.
The crown is of enamel & of gums.
The crown is of enamel & of gums.

The crown of the infant may be
discovered from the adult. The
The crown is of enamel & of gums.
The crown is of enamel & of gums.
The crown is of enamel & of gums.

Anatomists have divided the teeth
into incisors, canines, & molars.
The incisors are the teeth which
are used for cutting food.
The canines are the teeth which
are used for tearing food.
The molars are the teeth which
are used for grinding food.

(a) If for inst. one of I. fangs is turned
 inwards, & another outwards, & the
 latter is drawn on the opposite side
 to it. It is turned towards the gum,
 it must lacerate it in the operation
 if drawn on the other side and last
 of both fangs are turned ~~the~~ ^{the} ~~the~~
~~the~~ fangs towards the gums, ^{which} ~~which~~
 it is drawn lacerate must be
 the course given ~~to~~ ^{to} ~~the~~
 in the lower jaw. You have you only
 one fang each and two in the upper
 (b) The *Canis* - The *Canis* *Canis*
 has one edge sloping down with last corner
 the next two points on its base, & two roots



Lecture 33rd The Teeth continued

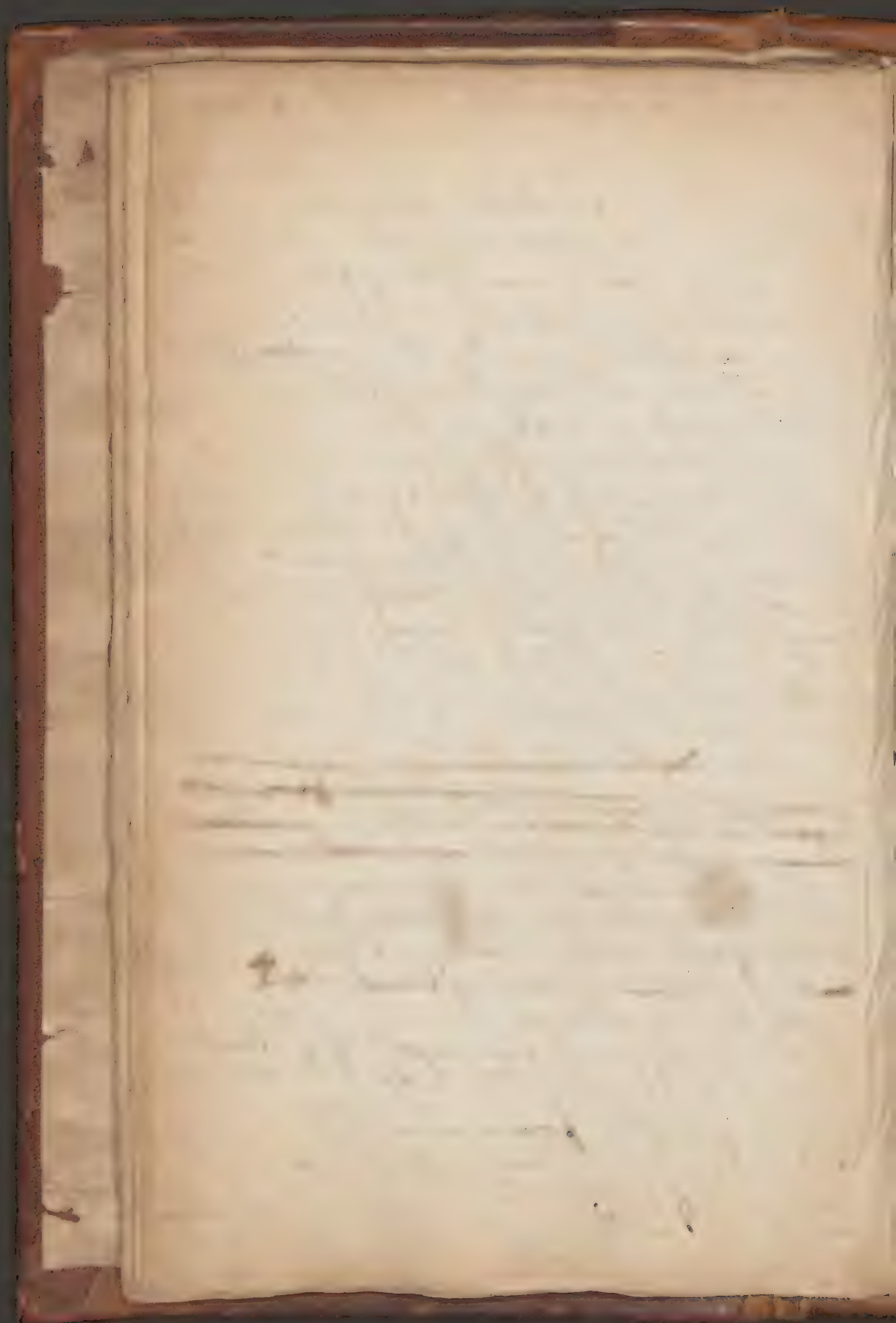
The enamel in the teeth of the upper
runs in parallel lines wth of horny subst^{ce}
(as of the fingers of one hand, inside, just
between the spaces of those of the
other)

There are 2 memb^s. a heavily vascular
lining the alveolar processes - line of
which secretes enamel, & of the
of horny subst^{ce}. - They both act together
only showing out a spot of bone - as
the teeth are shed & renewed ones w^h are
from number of old ones, gradually
wash out till at last they show
them entirely out, to make room
for their own growth

In the growth of teeth, edges are uniformly
smooth

Substance of enamel is very hard & is
very of the teeth of child. It is possible
in a great deg^{ree}. Many in of country
Mr. C. of America that has been with
care examined the teeth in clothing child^{ren}
so as to defend 'em against of cold &
dampness of this atmosphere. He advises
flannel about the neck & to be in the
in good weather. It is good with the
to guard for child. It is best - both
a suitable & available for the given
When conversations are occasional & light
& talking, of. gums should be divided by
a lancet at back of the tongue, &
inflamed is gone. The cause of the
is of great service & prevents
of natural & of the vulvulae fit

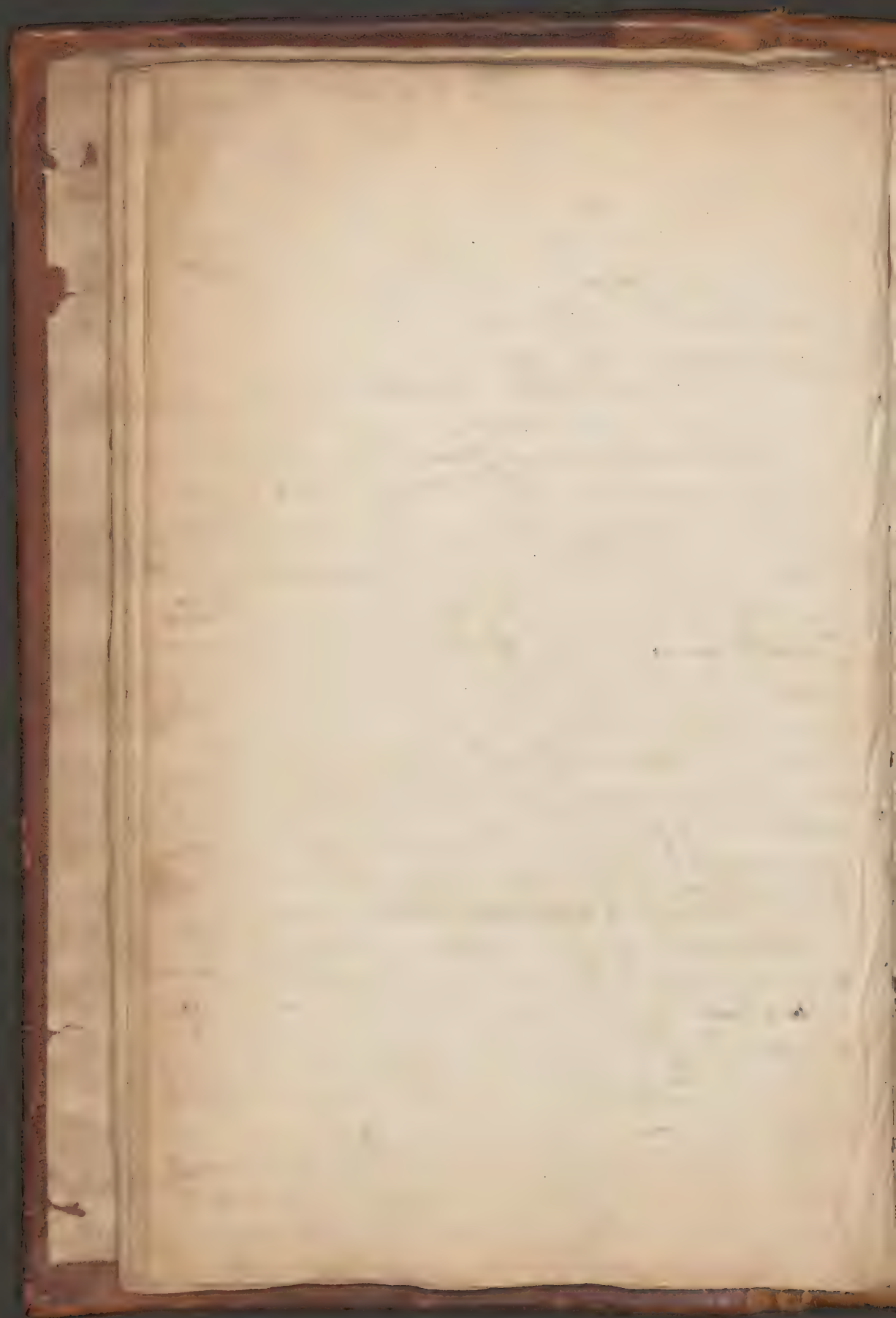
(a) When a 2nd tooth makes its appearance
one may be sure the child is 6 years old.
and when a *dens molaris*, if the ~~teeth~~
is lost to —



on it a crew of 4 took me
to appear at 7. age of 90 - but I
never saw Bolany. I thought
that was a question. I thought the
tuba gave longer, or not, after
were perfectly alone the guns - M.
I think they do not

The teeth may lead loose from many causes - softening of the action of mercury - gum affections & of the interstices between verticals, or the various degrees of caries on the teeth. While the teeth are in perfect order they are incapable of having tartar deposited on them but as soon as ever the enamel surface is broken off either by cleaning, but with acids, or any other cause, tartar is deposited in consid. quantity, & kept very close in contact & remains as if the salivary gland could not lay down a large quantity of ~~saliva~~ tartar.

The teeth most like to the teeth of
 a molar, but the incisors are more



It now appears by the report — that
~~there~~ these are the only ones in the
this complaint, & give constant pain
except to the action of the system, & the
above. They may be felt in the
gold leaf or sheet lead — either of
gives a good deal of pain, & pain
in the joint after it — When none
of these methods succeed, the tooth
must be extracted —

If there has been a question whether to take
cal. fac. Dracoms during the time of
severe inflammation or not & if
undoubtedly must be better to do
it, when there's no inflⁿ. - but a
person who is in intense pain
wishes to be relieved immediately, & will
wait several days till the pain, &
inflⁿ is gone off, & then submit to
the operation.

When other pains in the face
from scrupulous affection, sea sickness
seems the best remedy — In pains
of the face from cause of the tooth Mr
Haslam & P. other & pain given
together but I carried some in
relief of the pain & the

When the teeth are covered with tartar,
a layer of the gums may be the consequence
in such cases, such as this, & then
a thing may be in it & afterwards
friction, so as to remove the gums
completely, & then, & then

Polyp of the genus may be
extracted by the knife M. Hunter

(a) & if there's no outlet made by its extraction
to run a hose into it. on them

Principle of the pit. returns
to the body & become cancerous - but
Mc never of it more as an
account

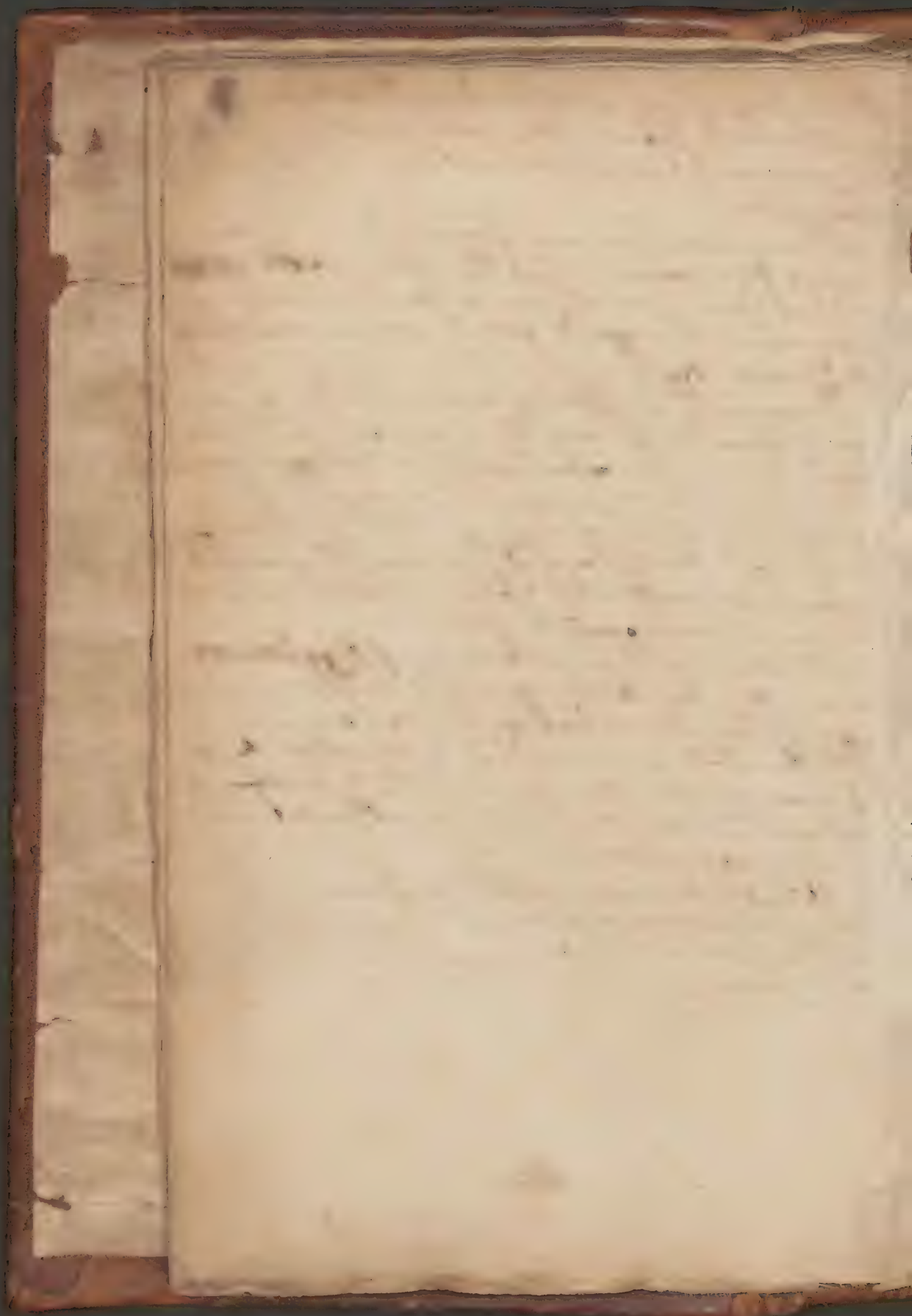
When a deeper and further in the
cancerous cavity, the ~~body~~ ~~body~~
is but open & afterwards the latter
drawn as the body goes & some mischief
at first pit

Now it happens when the
transplants of death of a part of the
jaw bone & excitation taking place
this has been sometimes ascribed to
a removal of the ~~body~~ ~~body~~ ~~body~~
of the transplants will grow
a deep perfectly dry, & dis. cause
a corn suggestive

Matter in the anterior of ~~the~~
may then be distinguished and point
about the frontal sinuses &c.

Mr. Hunter recommends of puncturing
of nasal bone with a W. C. Jones
extracting one of the molars - &
general effects (a)

A good instruction of the ear has
sometimes been known to cure the
tooth-ach - and a variety of the
remedies



Lectures

on —

Anatomy —

By W^m. Cruikshank, &
Doct^r. Baillie. —

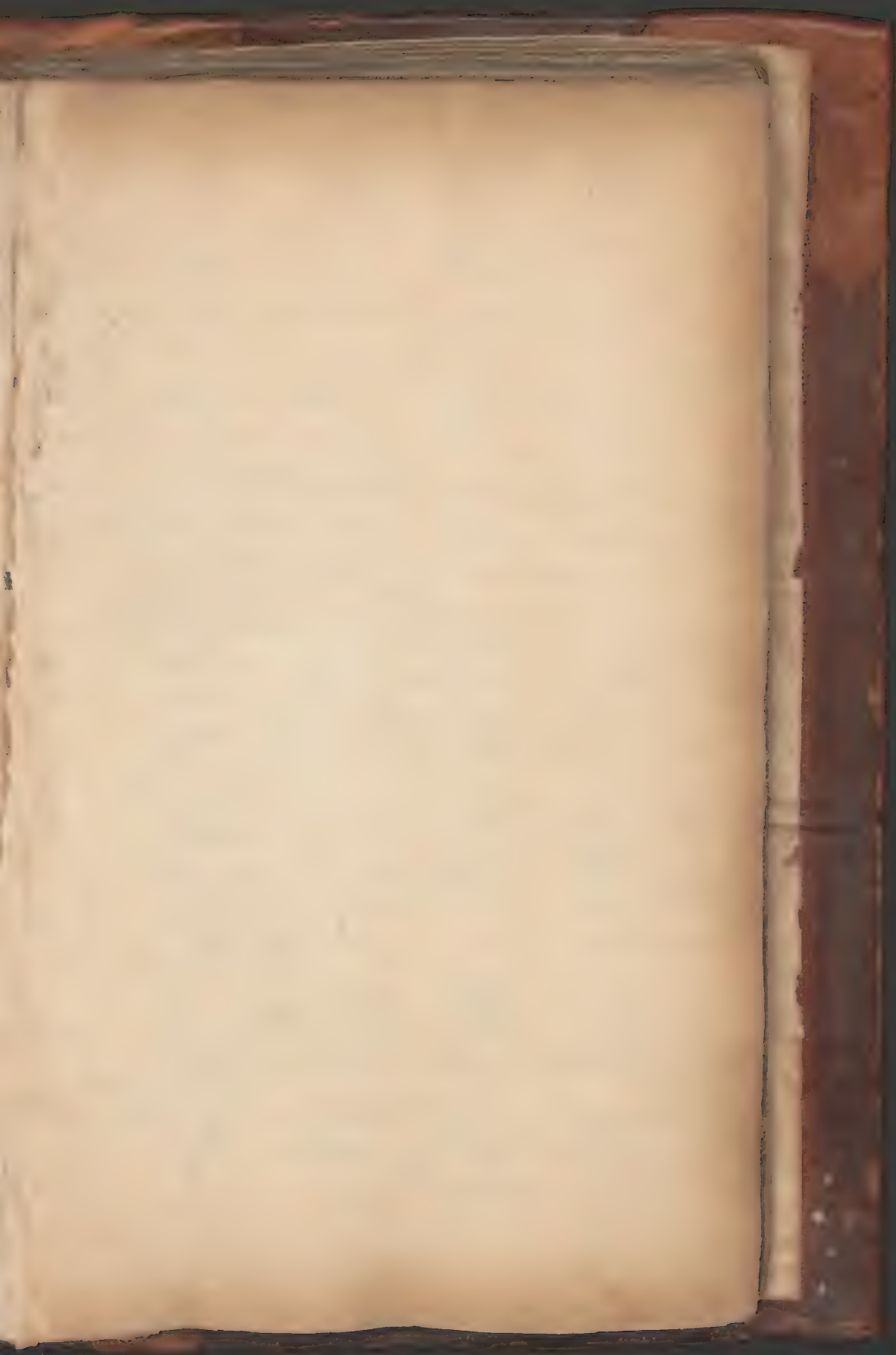
N^o. 4 —

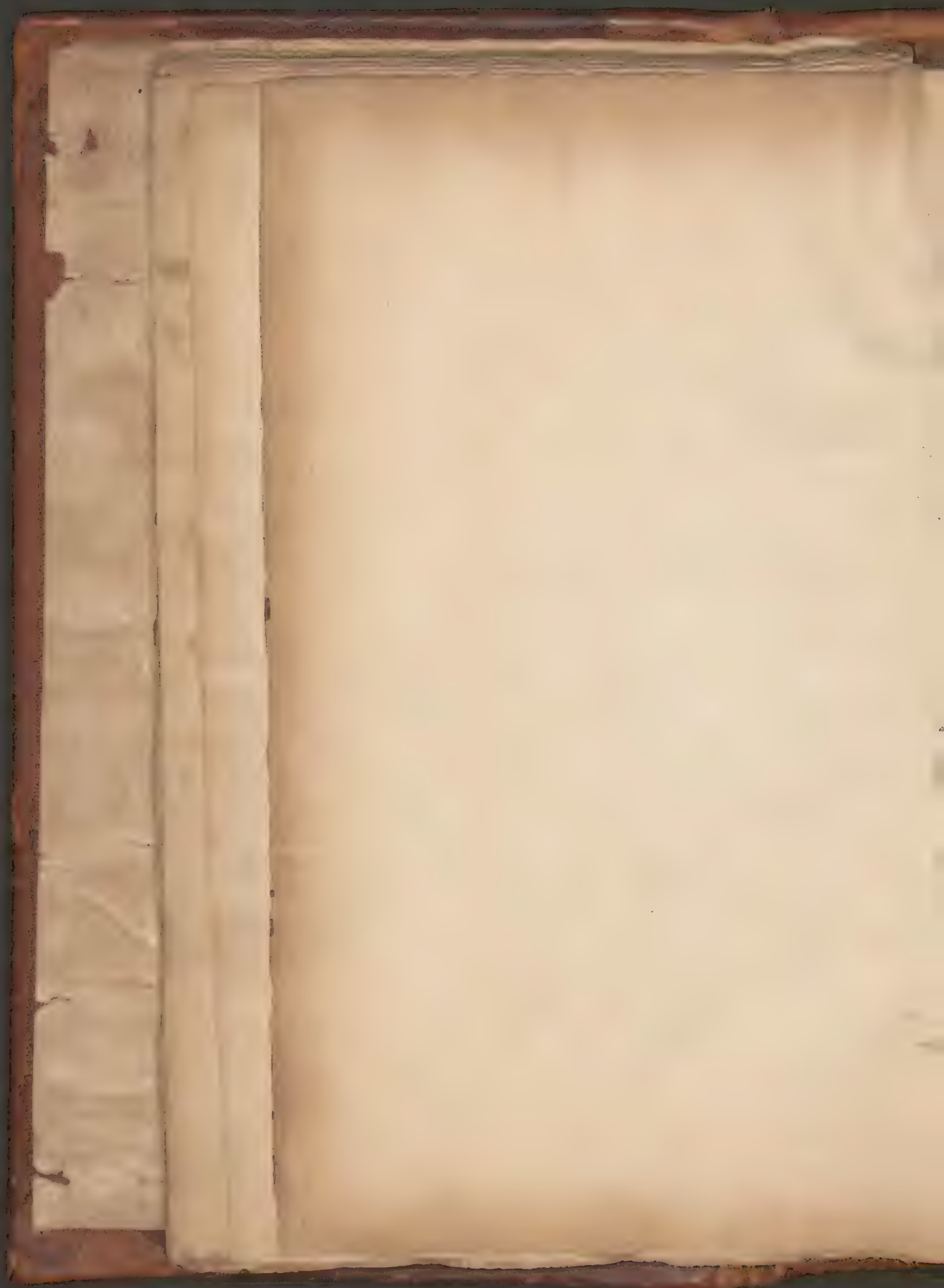
1800

1801

1802

1803





Lectures of the Male Organs of Generation

In quadrupeds of abdominal rings are never closed during the whole life. The reason of this seems to be, as the intest. in Man are ^{not} do not fall down by their gravity, they are raised & carried for their support up while in erect and as in Man it is quite the reverse, and therefore Nature has guarded against such accidents by closing of rings.

Gravity from above and above in pressing the testicles from of. Canis in of. scrotum, as it happens before birth, when the testis being downwards from of, consequently of testicles must descend.

M. Charc. & a doubtless of. Peritonium is brought down along with testes.

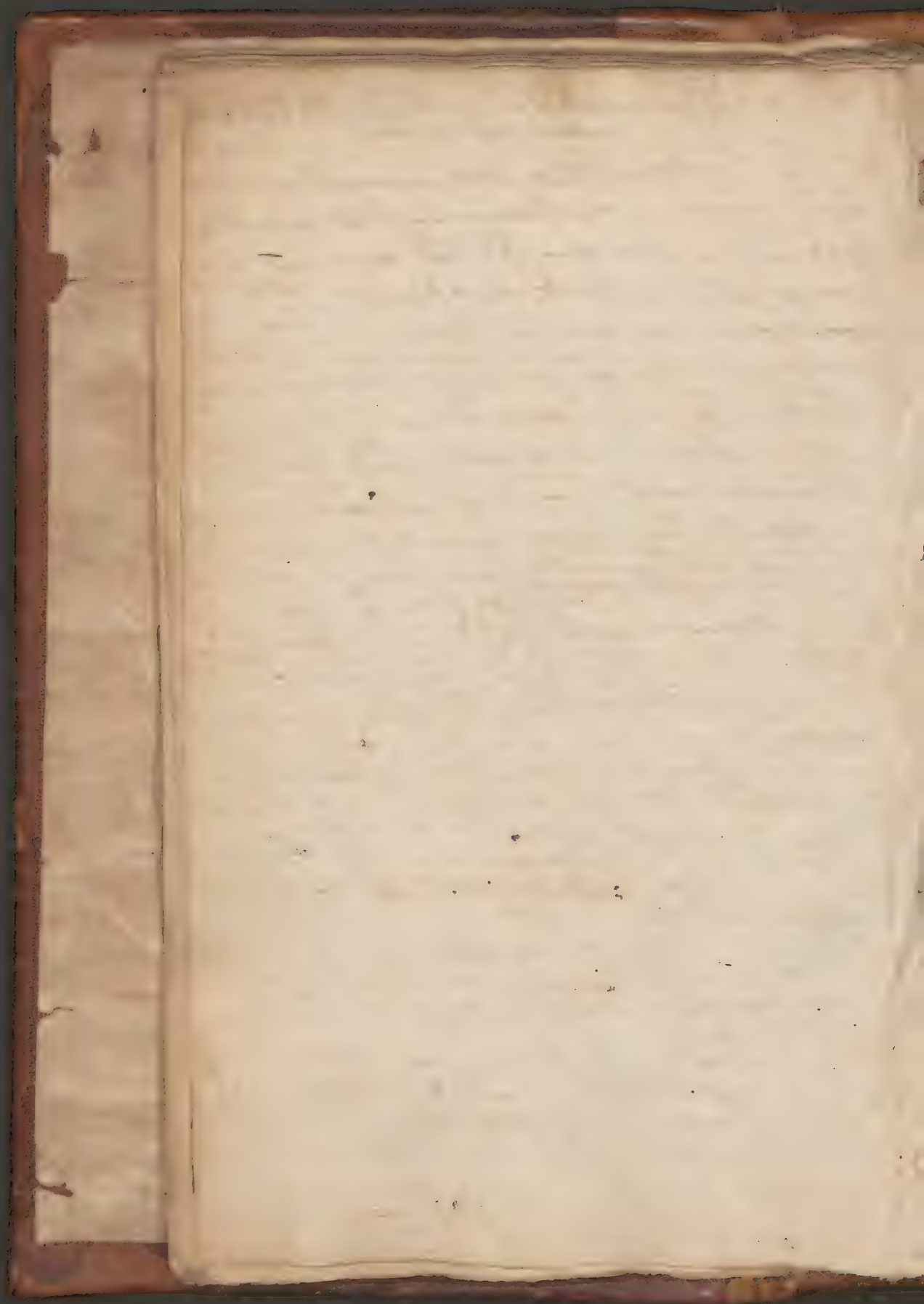
The descending congenital is when the funiculus comes in contact with the testicle, and can only happen before birth.

The bulbourethral before it proper the ring, in cell of inguinal rupture when ~~pro~~ had the ring, scrotal rupture &c.

The bulbourethral may be joined with the hydraule. The hydraule is divided into 2 hydraules.

The funiculus vaginalis & hydraule of of. aged.

The testis in the scrotum remain of same size for



I have observed, & that Dr. Baileys, who
they begin to enlarge — They are
composed by S. Inter which is made
up of veins - arteries - nerves - lymphatics
vessels & many others. In this
short, there's a considerable quantity
cellular membrane, of particular
kind —

The cremaster is a thin spindle
made up of a few fibres. w. in very
old age, Heller says, are entirely
obliterated. It is inserted into the
tunica vaginalis, in a repeated
manner. The tubiles may
undergo 2 changes - one from a cremaster
to a thing. The

The Ancient described a muscle called
Sartos but not such a muscle exists.
There is certainly a power of
contraction in the internal part
of the scirrhous but must be diff. to
muscular action, as if that is
not capble of being stimulat. by any stimuli
as oil of turpentine &c.

Lecture 36: Parts of Generatⁿ. cont.

The body of *I. testile* consists of 11 br-
caets of epithelium - its chit.
The 1st caet is a reflection of the peritremum.
The posterior part of *I. testile* is closely
connected with the ~~peritremum~~ ^{peritremum} ~~peritremum~~
nagualis - When *I. lancia* passes
in and thro' *I. pidgeonii* from which it
issues as a result of *I. lancia* they
testilely *I. lancia* ^{it is} ~~caet~~ ^{caet} - The
mag. caet. on *I. side* of *I. testile*

+ The internal part of the testis consists
of a congeries of tubules extremely convoluted
which are the tubule testis. In these
the ramifications of the spermatic
arteries open, and from these tubule
ramifications the semen is conveyed
to the rete testis —

upper the thick - with the larger part superior
smaller inferior -

The tunica albuginea is a coat lying loosely on, or embracing f. body of testis. Most of f. arteries enter into f. testis at its superior edge, all v. art. veins - nerves & lymphatics enter into the body of f. testis at the superior part - where f. tun. albuginea adheres to it for about half an inch. One principal reason why the veins of f. testis become more frequently varicose than those of any other part, is that they carry blood against gravity.

X *Thrya laevis* Jan of *Testes*, 12
 and *Testes* *capitata* *conica*
 tubes, *capitata* *conica*
 other *capitata* *conica* till I last says to *capitata*
capitata *conica* *capitata* *conica*
 three *capitata* *conica* of a *capitata*
 was *capitata* *conica*

Le 37^m. Organs of Generatⁿ contd.

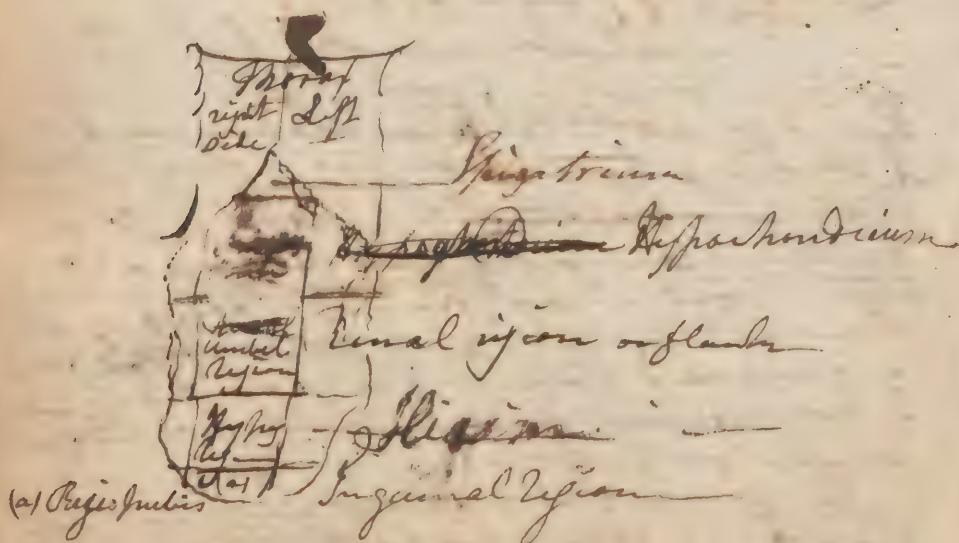
The alligator muscle from the
septum serici is found between the
dorsal & ventral lobes of the septum, & is
of a soft, fleshy, & somewhat gelatinous
consistency. It is of a pale yellowish
color, & is about half an inch
long. It is very tender, & is easily
broken up. It is of a soft, fleshy,
& somewhat gelatinous consistency.
It is of a pale yellowish color, & is
about half an inch long. It is very
tender, & is easily broken up.

The principal personnel when it first
appears to the command of a pt many cells
like a money - comb back - common

(a) In a horse they are a kind of bag
with any such apple fulls

(b) The prostate is situated near the
neck of the bladder

(c) very call of the name of the penis



in each other. The vesicula seminalis
hominate before of. glandula vesica in
a bulb call. V. n. montanum
but of the vesicula seminalis. one of the
squeezed a brown kind of fluid
Besides the fluid of the testicle &
vesicula seminalis there is another
in the liquor of. prostate gland.
The color of this is of a whitish kind
somewhat like pus. The vesicula
seminalis punctate of. prostate gl.
& runs ^{into} it. (Q)

Cowper's glands are 2 small ^{glands} situated
on each side of the bulb of the
urethra.

The corpus spongiosum urethrae
terminates at last in the glans penis.
The penis is composed of the corpus
spongiosum & 2 corpora cavernosa
situated on f. two anterior sides of
f. corpus spongiosum.

Of the Relative Situation of the Thoracic Viscera.

The cavity of the abdomen
is divided into f. epigastric region
in the middle of the upper part of
f. abdomen & f. hypochondria
on each side - f. umbilical region a little
lower & f. flanks on each side
f. hypogastric region still lower. The
media & c. in p. on each side
The upper part of f. abdomen for epigastrum
reaches from the xiphoid process to within
2 fingers breadth above f. navel. The
& sides are call. hypochondria. (P. 10)

2/ The right hypochondrium covers the small
part of the liver of left, of spleen & part of
of stomach & colon

The middle part of of. abdomen (or regio
umbilicalis) extends from 2 fingers breadth
above, to 2 below the navel. It covers
the jejunum, & part of the ileum. Its
sides are call'd of. renal regions - as flanks
(& by some epicolica, because ~~because~~ they
cover the colon) - The right covers of. kidney
of of. side - part of the colon & jejunum
of left, of. left kidney & part of of. colon
& jejunum

The lower part of of. abdomen (or hypogastrium)
reaches from of. umbil. region - or from
2 fingers breadth below of. navel, to the
os pubis - It covers of. bladder - womb
& rectum. Its sides are call'd ~~Inguina~~
Ilia -

The lower part of the hypogastrium
is call'd regio pubis - & its sides inguina

The thorax is divided into the
right & left cavity one on each side
of midline - w. forming the
septum

There are several men of science
& even a doctor in Iowa who
contend that air is cont. in the
cavity of the thorax, & believe of
it being cont. in the lungs; but
Mr. C. demonstrates the very
reverse & shows that if a puncture is made thro' the
pleura into the cavity of the
thorax, the external atmospheric
air rushes into it & makes the
lungs collapse - & makes the
cavity of the thorax - &
it was in contact w. the

Of the Pleura

The pleura is divided into
2 - 1st series the thorax - & 2^d
is upon the external surface
of the lungs - the 1st called pleura
costalis - the 2^d pleura pulmonalis

Mr. C. has given to 4 or 5 people
who have of pleurisy - in whom
he found no appearance of
the lungs or pleura - & it is

12
It makes the right cavity of
the nose somewhat larger than the
left - tho' but a little more so -

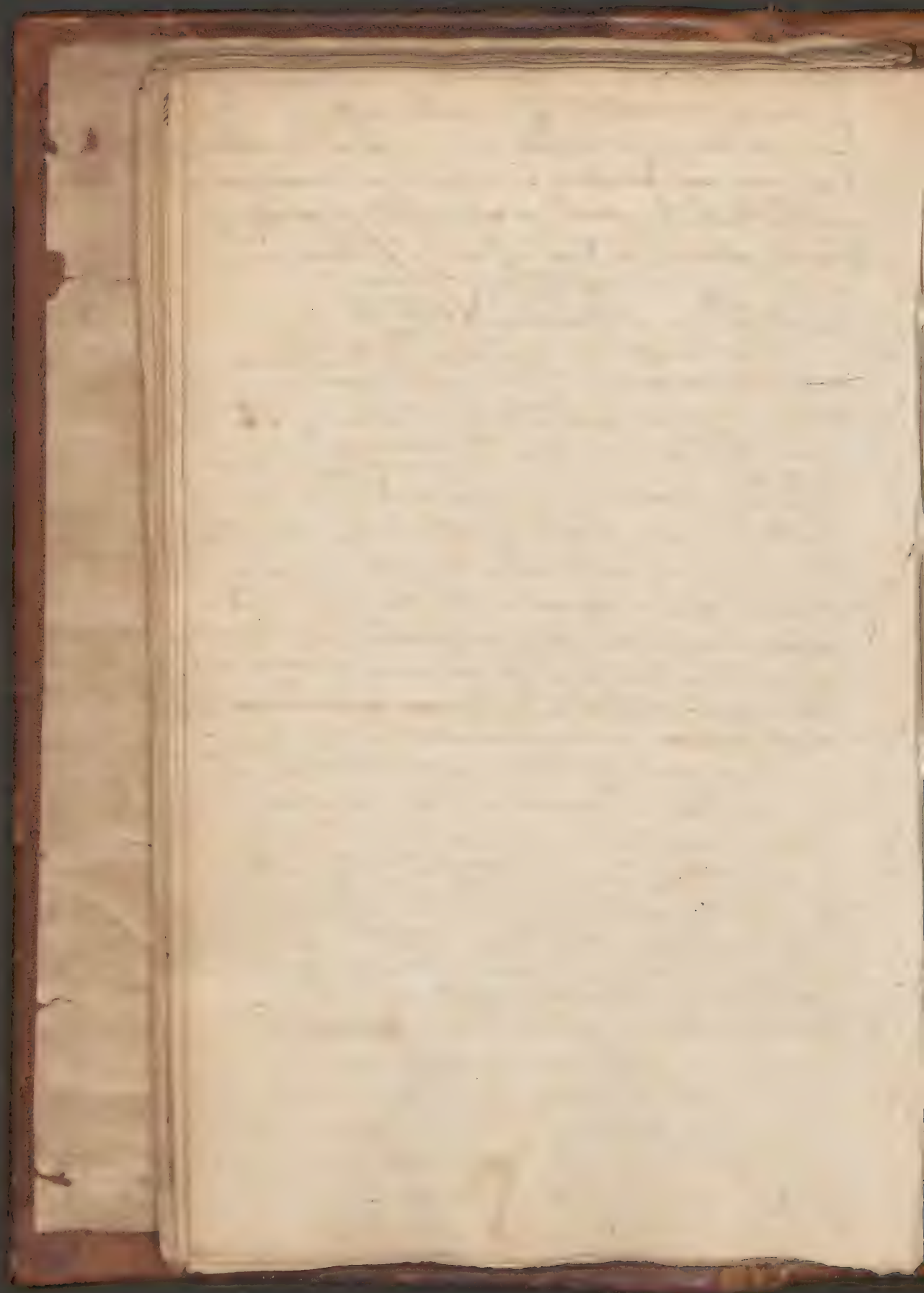
2. Fibers from each lobe of
of lungs ^{at} about 4th of the dorsal
vertebrae & these uniting into trunk
almost in midline, called the trachea
ascends the spine

membrane of the nature of skin on -
of the inner surface of the lungs - of which
can be separated - The cavity
of the pericardium is a perfect sacculum
except that it contains a small quantity of
fluid - about a tea spoonful -

Sept 38th / Of the Lungs.

The lungs are divided into the right
a left lobe - and the right again into
3 lobes - made by fissures down to the
root of the lobe - and the left into
2 lobes - The color of the lungs
is diff. in diff. subjects - in some
they are of a blackish color - in
others of a grey - and in others of a reddish
color - The lungs at their root
are attached to the bronchia - at
their anterior part to the stomach by the mediastinum
- and their lower ends to the diaphragm
by two ligaments - one to
each lobe - call'd the ligaments
of the lungs -

As it was necessary of respiration
the cavity goes on - The trachea is
made of a cartilag. substance - it is
call'd trachea as far upwards as the
cricoid cartilage - after which it is
call'd larynx - The ~~trachea~~ ^{larynx} is
the larynx was call'd by the
ancients stottis - but the true stottis
is about half an inch down the
trachea, where the membrane is rather
less contracted into a kind of ring
this is cov'd by a cartilage -



lies down by 3 segments - and
is called epistaxis. This lay across
the trachea prevents any air from
coming in as food &c. happens into the
trachea and as soon as swallow
is effected elevates itself by its elasticity
& suffers the air to get into the
lungs.

The superior part of Heart is
nearly in a line with the middle
of the spine is between the bones of the
neck & the 5th & 6th ribs. The heart
lies nearly in the middle of the
throat in the pericardium - but
rather more to the left side. In life
it is open it turns & rests on the
middle & middling part of the
diaphragm - on certain tendons
to which the pericardium is attached
When we stop the ~~circulation~~
~~in the~~ circulation for a few
moments so that no fluids can
be felt in the arteries violent
beating, it is as with the diaphragm
drawn down with it the heart
lay that means putting its principal
arteries on the stretch & dividing
their cavities. In the
dead ^{body} we find that the heart may
be inflated to double the size it
ever could have been in the
living one, according to the size
of the pericardium - we cannot
however admit of above half such
a distension in a living person.

(a) is always applied to this part of the
aorta

at the cavity of the inferior vena cava.

(a) W. J. has seen an instance where
there was one of these veins on
each side of the spine; so that the term
vein pair is not always proper.

vena superior lies on the
right side of the aorta. The
subclavian on the left - course of
aorta lies in the middle. The
reason the aorta is frequently
~~seen to be~~ especially at the base
that the force of the blood when
thrown from the left auricle by the systole of
the heart moving upwards and
downwards, two ~~times~~ the
distance of each side -

There are 2 nerves called V. & A.
Ventricular nerves arising, one
on each side of the heart. The right
is a little shorter than the left -

Part 39th of the Oesophagus &c.

The oesophagus is situated in the
middle of the thorax. At its superior part
it is under the trachea. At its inferior part
it is under the pericardium. It is
in the middle of the thorax -
situated in the middle of the whole cavity
of the thorax -

As soon as the vena cava super-
ior emerges from the pericardium, it sends
off a pretty large vein, called the great
vein of the vena cava superior, which
divides on the right side of the spine, going upwards
to four of the costal spaces, and
to all of the below -

at M. L. Bentholine observes that he
has seen a case of Dropsy - where the
water was not in the cavity of the abdomen
but between the muscles peritoneum - Dr
Gunter scarcely believed it, but M. L. thinks it
probable, as he says a matter for it is
the same situation -
[16] He says disease occurred it, for in
the healthy & natural state of the
heart, there is never more than just
enough to maintain the different surfaces,
so as perhaps just to meet the ends of
of fingers.

Of the upper part of it is called pharynx -

[16] M. L. mentions a case of
disease between the stomach & liver
in a young woman, where owing to
the disease of the stomach, the liver
was more enlarged - & occurred in the
liver - as when not much distended -

The Relative Situation of the Abdominal Viscera

(a) The Peritoneum is a thin membrane
which covers the inner surfaces of the abdominal
cavity - in short all the abdominal
viscera. This membrane secretes
a small quantity of fluid, not suff. to lubricate
the intestines & other viscera - if they were
slide easily upon each other. It is actually
found so much as a transposition
of the fluid in the abdomen, we say (p. 6)

The intestines are young said to be
6 or 7 times the length of the body -
Winshaw says he has seen the intestinal
canal 9 times as long as the body -
child it is much longer in proportion
than in the adult - it seems to approach
near the gregarious animals -
than the carnivorous animals -
as the intestines of the latter are much
shorter in proportion.

Part of the alimentary canal is in
the thoracic part in the thorax & part
in the abdomen.

The Stomach is situated in the left
hypochondrium between the liver
on the right & the spleen on the left.
The stomach when extended passes a part
of the diaphragm, & edge of the lower
rib over the cage and of the stomach
the spleen lies a little under
on the left side of the stomach
the ribs - the small lobe of the liver
is in contact with the stomach
on the right side of the stomach
when the stomach is extended it is more
moved to the left side - the small lobe of the liver

(a) passes under the concave side
of the liver - under the bottom
of the stomach to the spleen - to
the left kidney, and terminates
at upper part of the 9th sacrum
in the rectum -

(at Once A. J. 1st manus of
Hydro-Thorax, is inability of breathing
an horizontal ^{position} ~~position~~ in lying
The shell cannot happen if of pneumonia
shall all of them get out of their
places even the liver shall get
into an hernial sac — Galien
mentions 2 cases where of diaphragm
was corroded, & the liver pressed
into the cavity of p. Thorax
The viscera are thrown to the
left side in such cases, as in
a woman who has a gravid uterus.

200. 40. Of the MESTENTY.

The mesentery begins small, gradually enlarges till it get to the middle, when it gradually decreases again — The mesentery is composed of a double lamina of membrane. The peritoneum in coloring it there are pinnaceous quantities. Pyloric glands ^{more} there & in old people are very small, or quite obliterated. The thinness of their size is ^{more} common. The iliac plexus is of a papping of one part ^{for} in the thick of the large intestine part in this interruption of outer part in the same & confining in inner, obstructs of passage of the bowels — Or of smaller intestine & large intestine the larger, or complete obstruction even in this case. Cystic vessels formant of parts lying under the intestines, so common & diffusing their relaxed qualities, with great advantage — There are a thickening of the great intestine small pieces of fat called the appendiculae epiploicae — There are 3 longitudinal bands, which are muscular & extend thro' of the colon of which they contract throw them into sacculi (a)

Handwritten text in a cursive script, likely a historical document or manuscript. The text is written on aged, yellowed paper and is organized into several paragraphs. The script is dense and difficult to decipher due to its cursive nature and the age of the document. The text appears to be a continuous narrative or a series of entries, possibly related to a historical event or a personal account. The handwriting is consistent throughout the page, suggesting it was written by a single scribe. The paper shows signs of wear, including discoloration and some small stains, which are typical of old documents. The overall appearance is that of a well-preserved but aged piece of historical writing.

LECT. 11. ANATOMY OF THE LIVER.

The liver as has been said was not
in the abdominal cavity in the
erect position - but Mr. Thomas is of
no more in keeping with the liver - The
liver is suspended by a broad & thin - some
times 2 or 3 of right side in the umbilical
cord & some on the left side - It is
an 2 thin ligaments - The right & left
ligaments of the liver - The right is
of large & right lobe of the liver & is
of small lobe - From the right to the left
runs a reflection of the peritoneum
called the coronary ligament - The
liver is also supported by 2 vena cava
hepatica - w. which is right & coronary
veins the left - The whole ^{support} of
the liver is conveyed so as to adapt
to the diaphragm - There is a fissure
w. divides the 2 lobes, where the umbilical
cord, now a ligament, enters in
of vena - On the under surface
the ~~liver~~ liver is divided into 3 lobes
of 1st one - of small one - & the
Caudatus hepaticus - The lobulus
is divided by a fissure from the small
lobe of the liver - in w. a ligament
runs, w. formerly was the duct
venosus -
The Ductus fori - (Ch. Dac. lies between
of large & medium - It is formed
by the union of the ductus cysticus
coming from the vesicula fellea -
& of ductus hepaticus - w. is
in formed by the union of 2
of the lobes -

101 The vena portarum Dominis
is a collection of venous veins.
It is so called & all of them the
liver when it is all & vena portarum
hepatica. It has been said of ~~the~~ ~~the~~
liver & of vena portarum will
not coagulate & last M. & contrast
this opinion

The pancreas is situated in the
capitulum of the duodenum, enclosed in
a quantity of cellular membrane. From
its right side runs a duct with common
duct of duodenum. One end is
connected with the spleen & the other
with the duodenum. I. ~~pancreas~~
called the smaller pancreas. As soon as
it has run over the spine, it enters
this latter appellation. We see
nothing of the spleen in the cavity
of the abdomen. It is however
of a color dark when it is
detached from the rest of the
stomach. It immediately comes in

The spleen is situated in the
capitulum of the duodenum a little above
the pancreas in the space between
the 12th ribs - but is carried
lower by the action of the
diaphragm. The artery & vein
enter its right upper part - all
is carried to the spleen in case
of veins to the liver - its color
is of a bluish cast. When it
becomes scirrhus, it soon
is very enlarged in its bulk.

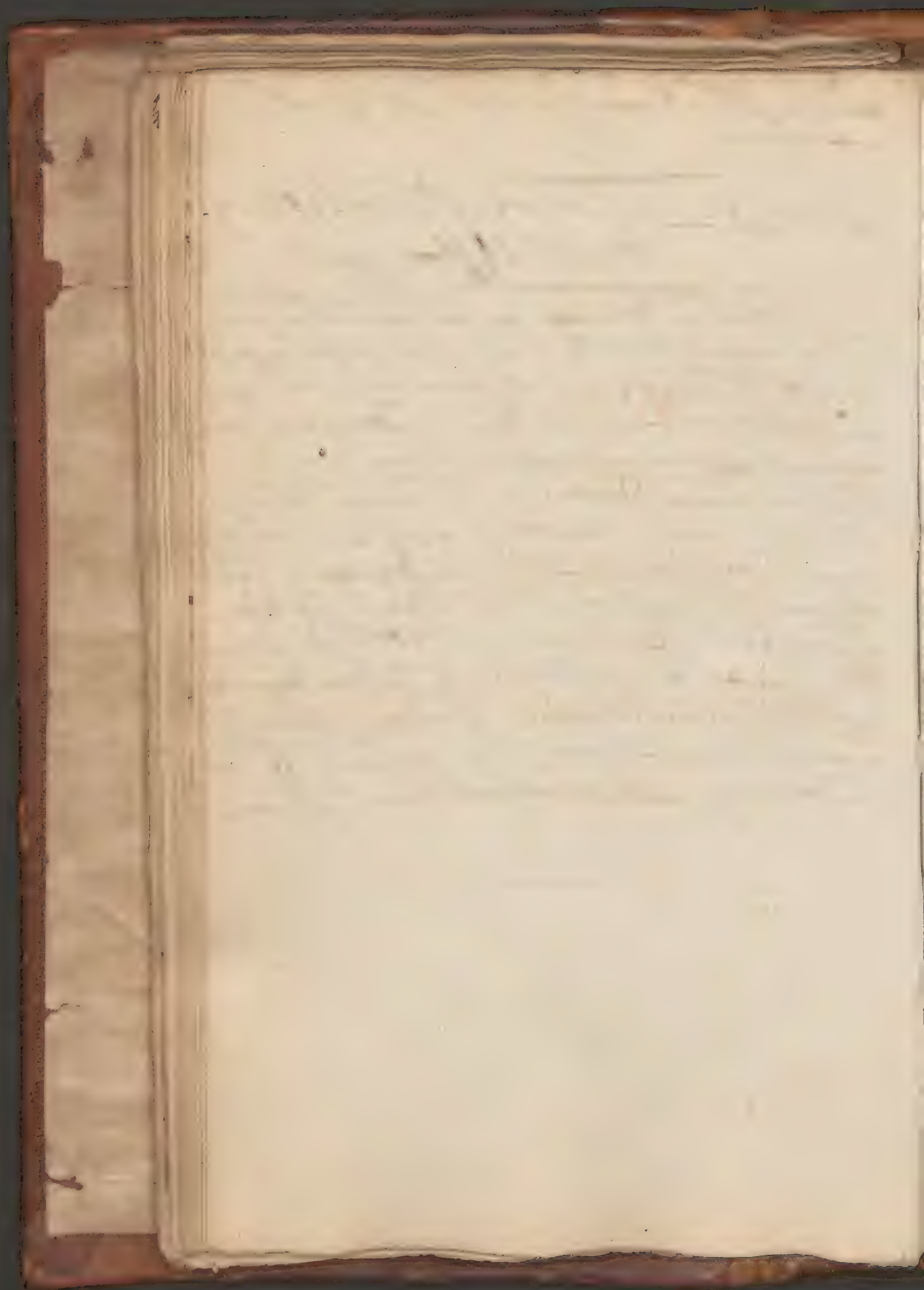
The Vena Portarum is divided
in vena portarum abdominalis &
vena portarum hepatica (a). This
stronger in texture than the other
when it follows the canal of the
I. capsule of the liver or the capsule of the
or capsule of the liver. It is
apparently the most common & all



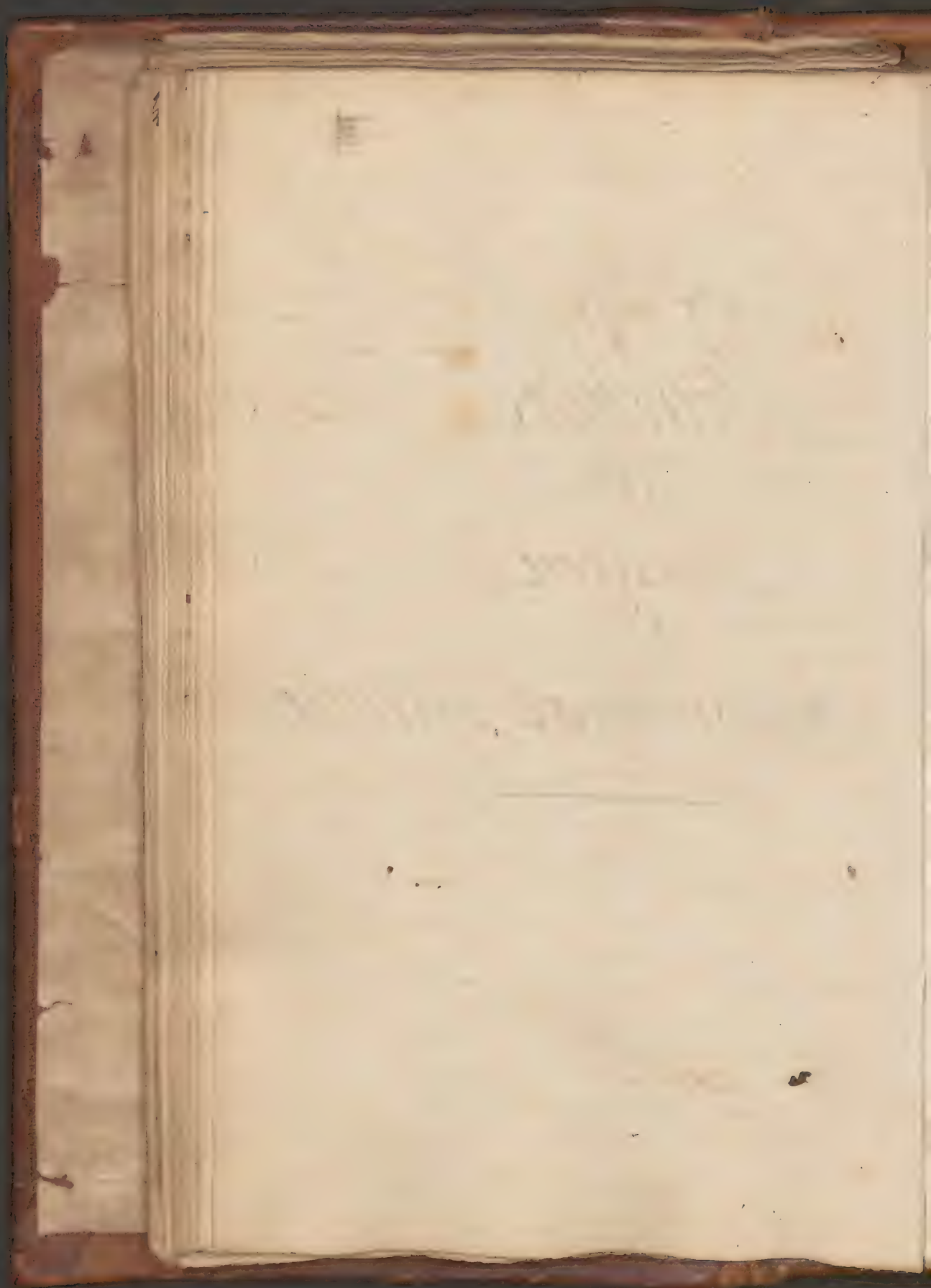
every part of it. missing has
occurs after a long time, a great
number

§ 42. Relative situation of Kidneys

The kidneys are situated in
the renal region, one on each side
of the vertebral column - of the 10th and
11th ribs. The kidneys have
some considerable motions.
The urine does not irritate
them, not having any irritating
qualities when in the kidneys - but
when it passes into the bladder
of finer parts are absorbed and
the more irritating to be dis-
charged by the urethra. The ureter is
a continuation of the cavity of the
kidney, called the pelvis.



Of the
Structure
of the
Thoracic
&
Abdominal Viscera.



By the Instruction of the Heart.

Long Canyon Boat Mize was
originally but one mile & one
quarter - a second right mile
& 4. off north side - a third left
of left mile & right quarter

The amide has a little proaprop
a ~~proaprop~~ - w. formerly was call
by Anatomist if amide - & means
of amide of - nura cana - (yellow)
if. uppropanty also found - (pro)
there we call amide - (re)

(as by which the valvulae tricuspidae
are ^{partly} formed, then carried down
and of the tricuspid valve, chorda tendinea,
which has attached to it a ring
to the sides of the ventricle ^{by its superior part of column} & at its
other to a membranous production
at the margin of the auricle & ventricle,
or tendinous circle, perform the office
of valves —

gammely, or rather com. in
Linnæus-like. The foramen ovale
has a redue in the middle of it, return
of blood in the foramen

The Ventricle - The left ventricle
is longer than of right - a man
he accounts for from of lateral
loosely an elongation of the
foramen ovale, & foramen - in
this left ventricle is of pericardium

in of cap. trachea - Above heart
In right ventricle are 3 valves
called of valvula tricuspidis of pericardium
of return of the blood from the right ventricle
to the left ventricle & the heart

This is pushed forwards into the
arteria pulmonalis - In the
ventricle are 3 val. fleshy pillars
running across, called of carina
columnarum of the right ventricle as
well as of auricle there are
also several small foramina

of ostium arteriosum (or division
between of pulmonary artery &
venous) there are three valves
called valvula semilunaris
or sigmoideales in the pericardium
of blood's return into the right ventricle

This artery divides into 2
branches one of which goes to the
right lobe of lung of the right
left - The blood returns from
of lungs by 2 pulmonary veins

of each lobe ~~to~~ ^{to} the left
ventricle & forms of the
arteria pulmonalis, enters of left auricle

There are two in number & are seated
at the orifice of the left ventricle to prevent
the return of blood into the left ventricle
by the same course as those of the right ventricle.

(a) into the left ventricle

The orifice is in when the curve
of aorta is opened for the left ventricle to pulsate
against it.

~~There is a great amount of blood which is
from the heart to the lungs & is not returned~~

(c) before it pierces the pericardium

I think, however, that it is not right to
 say that the contraction of the
 left ventricle is a sufficient cause of
 the force of the left ventricle, as it is
 certainly stronger than the right
 ventricle, as the left ventricle also
 receives more blood than the right
 ventricle, as the left ventricle has a
 greater force in it. The force of
 the left ventricle is certainly
 greater than the right ventricle, as the
 left ventricle has more muscle in it
 and the right ventricle is much
 weaker than the left. These
 differences in the structure of the
 ventricles are necessary to prevent the
 return of the blood to the heart
 and to prevent the blood from
 coming back from the aorta
 into the left ventricle. The
 aorta is divided into two branches
 which are joined on the substance of the heart.

Absorbents — The heart is not only furnished with arteries veins but with lymphatic vessels — The lymphatics of the heart give rise to divisions, & branch out on of these

Nerves — The chief nerves are of ganglion cervical & dorsal & of ganglion cervical inferior 1st 2nd 3rd 4th 5th 6th 7th 8th 9th 10th 11th 12th 13th 14th 15th 16th 17th 18th 19th 20th 21th 22th 23th 24th 25th 26th 27th 28th 29th 30th 31th 32th 33th 34th 35th 36th 37th 38th 39th 40th 41th 42th 43th 44th 45th 46th 47th 48th 49th 50th 51th 52th 53th 54th 55th 56th 57th 58th 59th 60th 61th 62th 63th 64th 65th 66th 67th 68th 69th 70th 71th 72th 73th 74th 75th 76th 77th 78th 79th 80th 81th 82th 83th 84th 85th 86th 87th 88th 89th 90th 91th 92th 93th 94th 95th 96th 97th 98th 99th 100th 101th 102th 103th 104th 105th 106th 107th 108th 109th 110th 111th 112th 113th 114th 115th 116th 117th 118th 119th 120th 121th 122th 123th 124th 125th 126th 127th 128th 129th 130th 131th 132th 133th 134th 135th 136th 137th 138th 139th 140th 141th 142th 143th 144th 145th 146th 147th 148th 149th 150th 151th 152th 153th 154th 155th 156th 157th 158th 159th 160th 161th 162th 163th 164th 165th 166th 167th 168th 169th 170th 171th 172th 173th 174th 175th 176th 177th 178th 179th 180th 181th 182th 183th 184th 185th 186th 187th 188th 189th 190th 191th 192th 193th 194th 195th 196th 197th 198th 199th 200th 201th 202th 203th 204th 205th 206th 207th 208th 209th 210th 211th 212th 213th 214th 215th 216th 217th 218th 219th 220th 221th 222th 223th 224th 225th 226th 227th 228th 229th 230th 231th 232th 233th 234th 235th 236th 237th 238th 239th 240th 241th 242th 243th 244th 245th 246th 247th 248th 249th 250th 251th 252th 253th 254th 255th 256th 257th 258th 259th 260th 261th 262th 263th 264th 265th 266th 267th 268th 269th 270th 271th 272th 273th 274th 275th 276th 277th 278th 279th 280th 281th 282th 283th 284th 285th 286th 287th 288th 289th 290th 291th 292th 293th 294th 295th 296th 297th 298th 299th 300th 301th 302th 303th 304th 305th 306th 307th 308th 309th 310th 311th 312th 313th 314th 315th 316th 317th 318th 319th 320th 321th 322th 323th 324th 325th 326th 327th 328th 329th 330th 331th 332th 333th 334th 335th 336th 337th 338th 339th 340th 341th 342th 343th 344th 345th 346th 347th 348th 349th 350th 351th 352th 353th 354th 355th 356th 357th 358th 359th 360th 361th 362th 363th 364th 365th 366th 367th 368th 369th 370th 371th 372th 373th 374th 375th 3

the lungs are formed of a
parenchymatous mass of substance
The trachea is continued in the tubes
of about 3. Dorsal vertebrae
when it divides into branches on
of vertebrae & right & left of the 2. top
lobe of the lung. In the largest or
upper part of the trachea are fine
cartilages, ~~of the 2. top~~ ~~of the 2. top~~
in the larynx are 2 cartilages, called
sacculi laryngii. - u. are supposed
to form of ~~the 2. top~~ hoarse cough, or
obstruction of the voice, according to
their contraction, or relaxation
The larynx is made of cartilage
& muscle. It is very elastic (4) - The
cartilages of the trachea are connected
to each other by a very elastic substance
which is muscular. The back part
of the trachea is a thin elastic membrane
which is also muscular - for the
glottis may be easily kept open in
the larynx and in the trachea
There are 2 rings of cartilage of
the trachea, each of which is muscular
part of the trachea is very elastic and
a band of it is formed of cartilage
forming the larynx & of ~~the 2. top~~
it is strong. But it is more of a circle
than a band perhaps 3 parts of
a circle. It is flattened by 4- number
of branches of the trachea, & by the
muscles of the whole outside of the larynx
as to the inside of the trachea & larynx
It is certainly so in some

(a) wth commun^c. wth each other
and—

(b) owing to the soft & exposed, which
is formed of cellular substance—

of human & the other birds in
little lobes projected up in one common
cavities receives a branch of the trachea
at bronchial but do not combine with other
L. N. 44. The Lungs const.

The bl. vessels are of diff. cal.
The art. carries a l. bl. of diff. cal.
back of v. body in gen. & of v. part
to the lungs. The air m. in
of L. vessels are many from so thick
fine of L. air m. certainly not
are them soft of thin coat. A
thin coat. The lungs receive a
quantity of alveolar secret. in
their septa. which is certainly diff. in
of alveolar secret. A thick coat.
The lungs in fish are very diff.
The N. of human species, being
infinitely more simple.

Of the Oesophagus.

The oesophagus of the fish is
cal. O. pharynx, behind a little
above of cervical cartilage, &
reaches to v. sternum. The oesoph.
consists of an ^{external} ~~external~~ ^{muscular} ~~muscular~~ ^{membr.} ~~membr.~~
muscular one. The internal
membr. is extremely sensible &
soft. other can be seen in the
gullet, having a thread. such connect
tissue. as the great. mammill. & blood.
Its diameter is very diff. in diff.
subjects. The muscular fibres
are circular some some longitudinal.

as the muscular coat is ~~also~~
covered externally with a reflection
of peritoneum

of the constrictor ones show
its lengthening of action & swelling
of crenular ones & increase of diam.
of gullet & length of larynx. contraction
of larynx & food downwards
In some ancient. of larynx surface of
it. asph. in thrown into ruga
allows of its dilatation & is consid-
erably in larynx. it is perfectly
smooth

Of the Structure of the Stomach.

The coat of stomach may
be divided into 2. internal or
~~of villous~~ coat & 2. external or
muscular one (at which larynx
coat. is much thicker. It shows
of ~~of villous~~ coat into ruga. for
this internal coat is not itself capable
of contraction

The Arteries of the stomach are
from the left aorta & its branches from
the 3rd pair of ganglia. is. the
a. no. of small twigs to the upper & middle
of stomach & so on & render it very singular

The Lymphatics of stomach are
especially numerous, conveying
what has been absorbed by same
The internal part of stomach has
undoubtedly glands for in many
instances when arsenic has been taken
follicles have been seen

The sensibility of stomach is very
great but not quite so great as that

is a rather the beginning of the work

of the esophagus — The muscular
fibres of the stomach, some longitudinal
& some circularly —

Structure of the Intestines.

The duodenum is all of part of
the intestines w^{ch} is rather firm & adheres
to where it is connected wth the stomach
mesentery — It is about 12 fingers
breadth long — The coat of the intestine
may be div^d into 3. internal or
villous & 2. muscular & 3. of
the or peritoneal coat. The tunica
cellulosa is only to be consid^{ed}
as cell^{ular} membrane — In the jejunum
& ileum, the villous coat is thrown
into folds, call^d valvulae connu-
mentis. They are much larger
in the jejunum than in the ileum — The
valvulae can be seen in the jejunum
in young infants.

The lymphatics of the intestine are
extremely numerous, & of glands likewise.
The peristaltic motion resembles
the motion of the sea, of longitudinal fibres
constantly contracting & relaxing the canal
or of the intestines, & thus moving it.
In diarrhoea, the peristaltic motion
is constantly downwards — At the
termination of the ileum, a valve
is found, call^d the ileocecal valve, by a process
of the internal coat, which prevents
the return of the faeces into the ileum.

1a) The appendix is in normal position,
seems more mature than the
infantile than of adult teeth.
The I is also present almost in
all letters. It has been supposed to
give that disagreeable sound to the
voice which obliges the animal to
keep its mouth open.

2a) That of absorption of I. This in
parts of I. lower teeth where there
seems not to be a doubt of

Of those going to the hair, is -

(a) The longitudinal muscles
 bands of colour are 3 in number
 one for. by f. annulum (in situ)
 another by f. m. s. color. & f.
 3^d distinct. The by these bands
 of f. ~~intest~~ color is brownish
 vacuati. These 3 bands go on
 the near f. sigmoid flexure of the
 colon, where 2 f. are under into
 one. There is a sec. of mucus in
 f. intest. & lubricates their surface
 some of f. p. are cov. w. f. white
 mucus of f. return

The length of f. intest. are
 very much as well as those
 of small ones | a |

The nerves cannot be demonstrated
 upon f. intestines, yet f. of other
 the they may on the rectum & caecum
 but there's no doubt f. of great
 sensibility of f. intest. f. of nerves
 could be seen

Lecture 4th of the Structure of the Liver

Bayer & Allen says that the
 liver has in it the same function of
 the cavity of the body as the open path
 of f. body - but Mr. C. does not imagine

The liver has 2 coats - 1st of f. f. f. f. f.
 2^d of f. f. f. f. f. f. f. f. f. f. f. f. f.
 The vessels are div. by Allen into the
 cavity of f. f. f. f. f. f. f. f. f. f. f. f. f.
 The f. f. f. f. f. f. f. f. f. f. f. f. f. f. f. f.

161 but only named it of. over-
s that of. equivalent art. sent off
from it, hence of. secret. —

161 formed by the mountainous
of the glacial river —

1 of ligamentum suspensorium
it very much resembles the
pelvic floor except of 7. Dura mater

a branch of the colic artery -
This branch of the colic artery is
much smaller than that of the
spleen may appear difficultly -
even is so much larger than of
spleen - but most probably it is, because
of liver has also the ~~vena~~ vena
portarum

The hepatic artery is, divided into
3 branches - 1. one to each lobe of
the liver - 2. one to the gall bladder
It has been said that the hepatic artery
has nothing to do with the secretion of the
bile - but Mr. C. thinks it more
probable that it may have some
share in the secretion

There is the vena portarum
The principal branch goes to the
right lobe of the liver - in the
direction of the right ligament - in the
branch to the small lobe in the
direction of the left - The smaller
branches of the liver are Mr. C. thinks
little cavities surrounded by mesoperitoneum in a secret
manner - In these probably is secreted
the bile brought by the cholangio lymph
vessels - by Malpighi to give out
the follicles - but there is not a doubt
but they arise from every part
where there are cells & vesicles - so
that in the liver they arise from every
of the minutest points - for if the
veins ~~or~~ ^{or} be inflated are inflated
the lymphatic vessels are distended
The principal trunk of the
lymphatics run on the posterior

of 28 on to termination of the
The is out

(a) It is about 1/2 size of a common
green gull

(a) muscular, or not

(2) or cystic glands

Dr. M. once dissected a pig in whom
there was no gall bladder, but a
quantity of cells - membr. instead of it -
in cells of which was the bile -

to point out their muscularity —
The gall stone colic prob. intense
pain — W. shows that if nerves
are extremely sensible — but whether
there may be if nerves of J. due
or if sudden ^{thick} cannot be determined

~~It is rather singular that there~~
is no vein corresponding to the
hepatic artery — In J. veins are
are small arteries, if it is most probable
are J. smaller of veins, corresponding
of hepatic artery — The capsule of
Gerson, appears to be only of J. sub-
cellular membrane — In J. sub-
J. ~~cell.~~ ^{large} ~~thin~~ ^{thick} of J. generally
of cell. sub-

The gall-bladder is a pretty large
membr. bag — in J. living only
will perhaps 3 or 4 oz. of J. The first
is the peritoneum — but of J. peritoneum
is only reflected on its upper part on
its under part, it appears to be sub-
cell. membr. on J. surface —

The two arter. W. run from J. hepatic
artery to J. gall-bladder, are
called anterior hepatic ganglia
They run one on each side to meet
its bottom — I have said that the
gall-bladder forms its green bile
but if this is the case, what is the
use of J. cystic ganglia? — (2)

(c) When the spleen leads to a
suppurative tubercle, like G. Camp.

The pancreas is about a foot in
length, growing larger towards the
caecum. It has a duct - com. duod.
This end is called its head - at its
other end, it connects with the J. splen.
The middle runs a duct, which
has the name of the duct of
Wirsungus.

The Arteries of the pancreas are
branches of J. arteria splenica & the
veins of J. vena splenica - They
are all arterial ~~for~~ & venous
pancreatic.

It has no duct for lymphatics
for they have been injected by
Mr. C. Its nerves have not been
discovered but they probably exist in
it.

The Spleen & pancreas are
attached to each other by J. arteria
& vena splenica. It has an
external cover of J. peritonaeum
a capsule peculiar to it but not
it is difficult to separate by macer.
The spleen forms 3 divisions in its
substance. It is extremely vascular
from J. arterial system. If its arteries
are injected, no glands are to be
seen. At J. most extreme branch
In many quadrupeds, its substance
is cellular & of the same structure as
J. corpora cavernosa penis - The
lymphatics of J. human spleen may
easily be seen in great numbers.

a p receives an internal call from
the herbaceous

in y. unpaired part of y. v. p. p.
They run with the splenic artery,
& terminate in the left side of
the thoracic duct — The spleen
does not appear to be sensible.
In some it has been cut out, &
marked away without affecting any
dominant of health — It has been supposed
to be assisting in correcting the chylo-lymphatic
system the lacteals — but whether this
is y. case or not, is very doubtful —

Subj. the Structure of the Kidneys.

The renal capsula cannot be found
in a great many subjects — In y. children,
ones, it is more rarely found. It is of the highly
vascular, & has no vessels of its own.
B. Brown Haller says he has found a cavity
in it, but Mr. C. never did. It is
situated at the top of the kidney about two
or three inches long, & of a semicircular
figure. — It is composed of two h. of
flesh of a yellowish grey in color
of an orange color — It is
divided into 2 lobes. What it is
is, has not been determined. It was
formerly called the capsula atrialis
attractilis.

The Kidney is made of a much
finer flesh than the spleen.
(a) ~~Renal capsula~~ capsula is of a
chamfered form, and adheres so firmly
to the kidney, that it is separated with
difficulty — Mr. Dawson
said it might be separated with
difficulty by means of a needle.

(1) The nerves from J. intercostals
to the lungs & diaphragm, are call'd
pulmonary - The ^{other} ~~former~~ branches from
J. costals - & J. for men going to J. thoracic
of J. cava
(2) are 8th of an inch

According to the number of lobules
in the kidney - some ^{are} 10, 11
or 11

Mr. Stenley says there are 10
or 11 lobules in it.

The kidney is a bag-like vesicle
made up of an external cortical substance
an internal tubular one

The kidney may be a simple
gland - it is the only one getting a renal
space cavity as in of Lamb & Lion
or conglomerate - The bear's kidney
is of the last kind - composed of 50 or
100 distinct kidneys - w. common
the each other by one stalk or it may
The human kidney is principally
of distinct kidneys - w. the stalks
run into each other - & join in one

c) The cortical substance is extremely vascular
It is about ~~1/2~~ ^{1/4} inch thick & very
fasciculated - proceeds into of tubular substance
The internal part forms a net of
tubules, w. are called tubuli uriniferi
They unite into 20 or 30 tubuli med. and
in of different infundibula w.
are joined to an of the urinary tract in
a common cavity called the
pelvis. The tubuli uriniferi are
of 4 different ducts of excretory glands

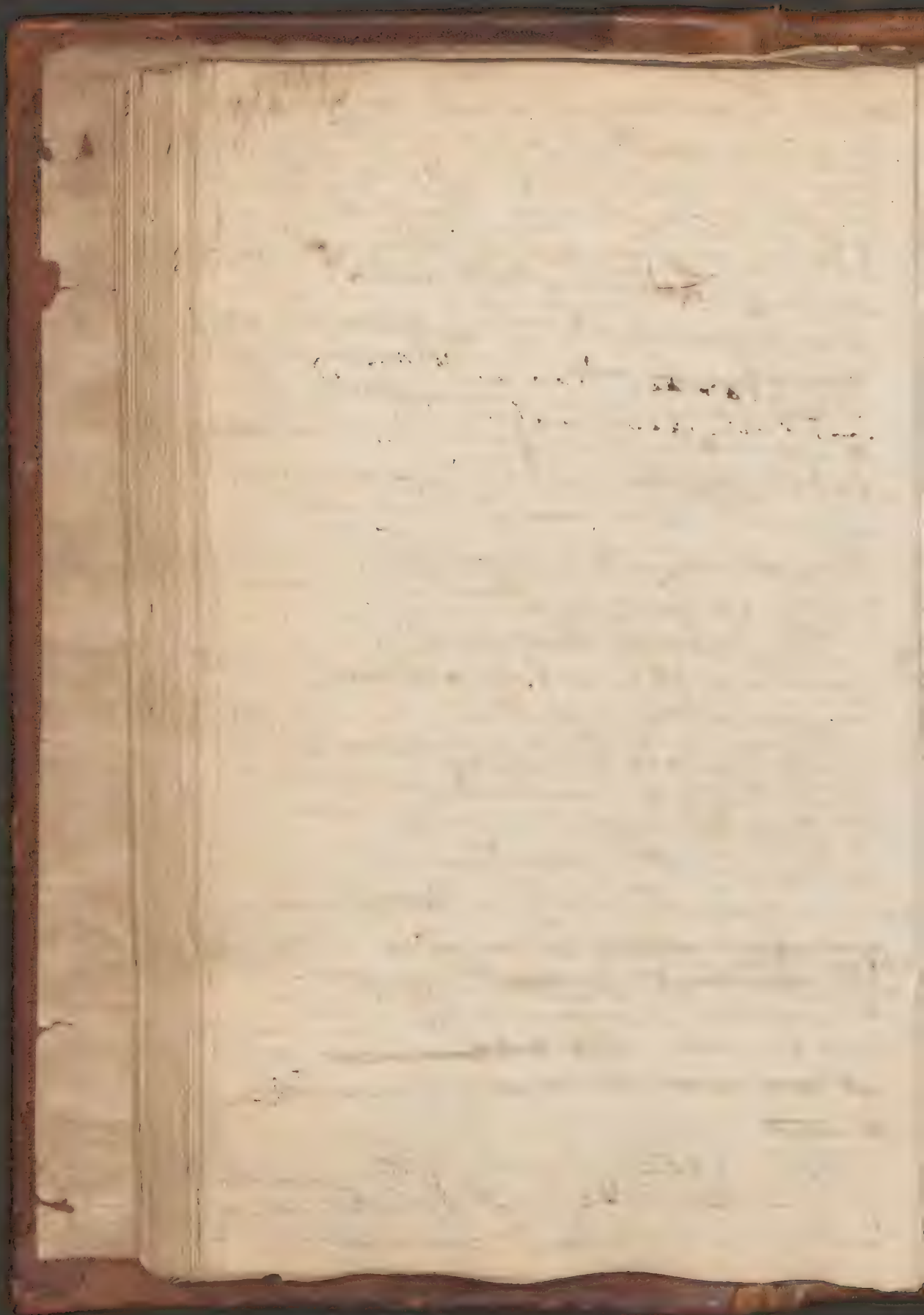
Malpigh's ~~idea~~ ~~extremities~~
Tubuli urinif.

~~Malpigh's~~ (Rough's ~~idea~~



a) The artery carrying blood off
(b) of tubulus urinif.

(c) Each kidney sends off an artery
just from its pelvis which are the
arteries - which run along the sides of the bladder
to near its neck, & then running a
little distance between its coat enter
into its cavity. — The pelvis
is only a dilatation of the ureter
on its head.

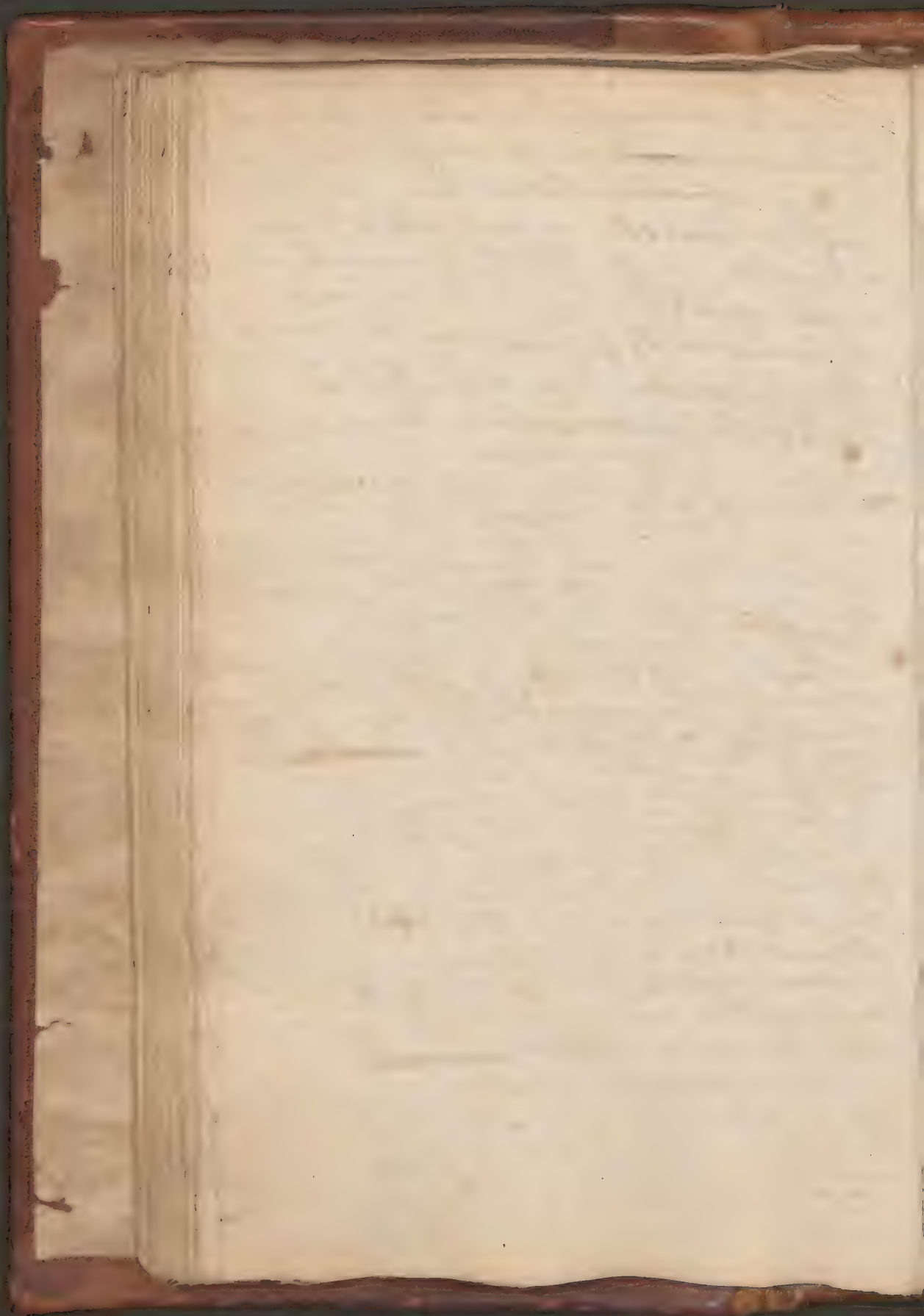


on the fore side, next to the nucleus
It has a muscular coat & internal
villous coat - The latter
is very vascular - The villous
coat is loosely connected by
cellular membrane to the muscular
coat - is thrown into rugae by
the action of the muscular coat.
The bladder has art. from the
internal iliac artery.

Lecture 47. Physiology of the Circulation.

The opinions of the ancients with
respect to the circulation are
very various indeed. Galen observes
that the pulmonary artery, which carries
by them called *crassa sanguis*, carries
black blood to the lungs &
comes back by veins to the left
side of the heart. Aristotle & others
this doctrine long before the
time of Harvey. In Fabricius
at Aquapendente found that the
veins had valves, it is rather
curious he did not discover the
valves. This discovery of the
valves gave the hint to Harvey
as to the means of his finding
out the circulation.

Galen observes that if a wound
is made in an artery, the blood
from every part of the body will
be washed down to produce
death.



Harvey discovered in several experiments
tying of aorta & these arteries in
various animals, that the blood was
brought from the heart by arteries
to every part of the body & the
veins. His remarks did not disclose
the veins would help a ligature
and therefore Harvey had to make
experiments to prove this. so finally
accepted the rest of his doctrine of the
circulation. Thus he demonstrated
that blood in arteries goes out
returning to the source by veins.
He did not discover the capillaries
connecting the arteries & veins - but
thought of them as interrupted
a French anatomist sort of substance
of small veins were

in the incubated egg, of the circulation
may be perceived. There appear 3 small
bags - one of right auricle - of left
ventricle & of bulk of the
aorta

Harvey sup^d about 30 pounds of
blood is thrown thro' of heart, every
4 minutes - so that in a natural
day of 24 hours it will be 14400 pounds.

Wrenschoff a German may 7th 1661
began to inject medicinal
infusions into the blood vessels -
after him Sir Charles Dracut was
made of some experiments & gave
young ones something of the
fact of matter to prove in this
way, they found was
what was to be done &
had, many of the
experiments to be done



shape, it might be tried - ~~the~~
~~death~~ ~~must~~ ~~therefore~~ ~~be~~
inevitable -

Physiology of Respiration.

It is now generally allowed, that the
circulation could go on without respiration.
For if a puncture be made
into one of the lobes of the lung,
the immediately collapsed & stop the
circulation of that side - & if a second
puncture be made in the other lobe
- so that if both sides be
circulation is entirely stopped.
In an experiment Mr. C. made
he found that on puncturing the
spinal marrow in the
neck, death was not produced
but was immediately attended by
the convulsive nerves -

The diff. kinds of air are
1st of respirable air - This appears
absolutely necessary to the life of the
human species - of quadrupeds &
most probably of fish. There are
hardly some insects which can
live without it, we are perfectly sure
this air extends about 45 miles
perpendicularly - The breath of

71

1

of animals of burning of fuel &c.
under it in space

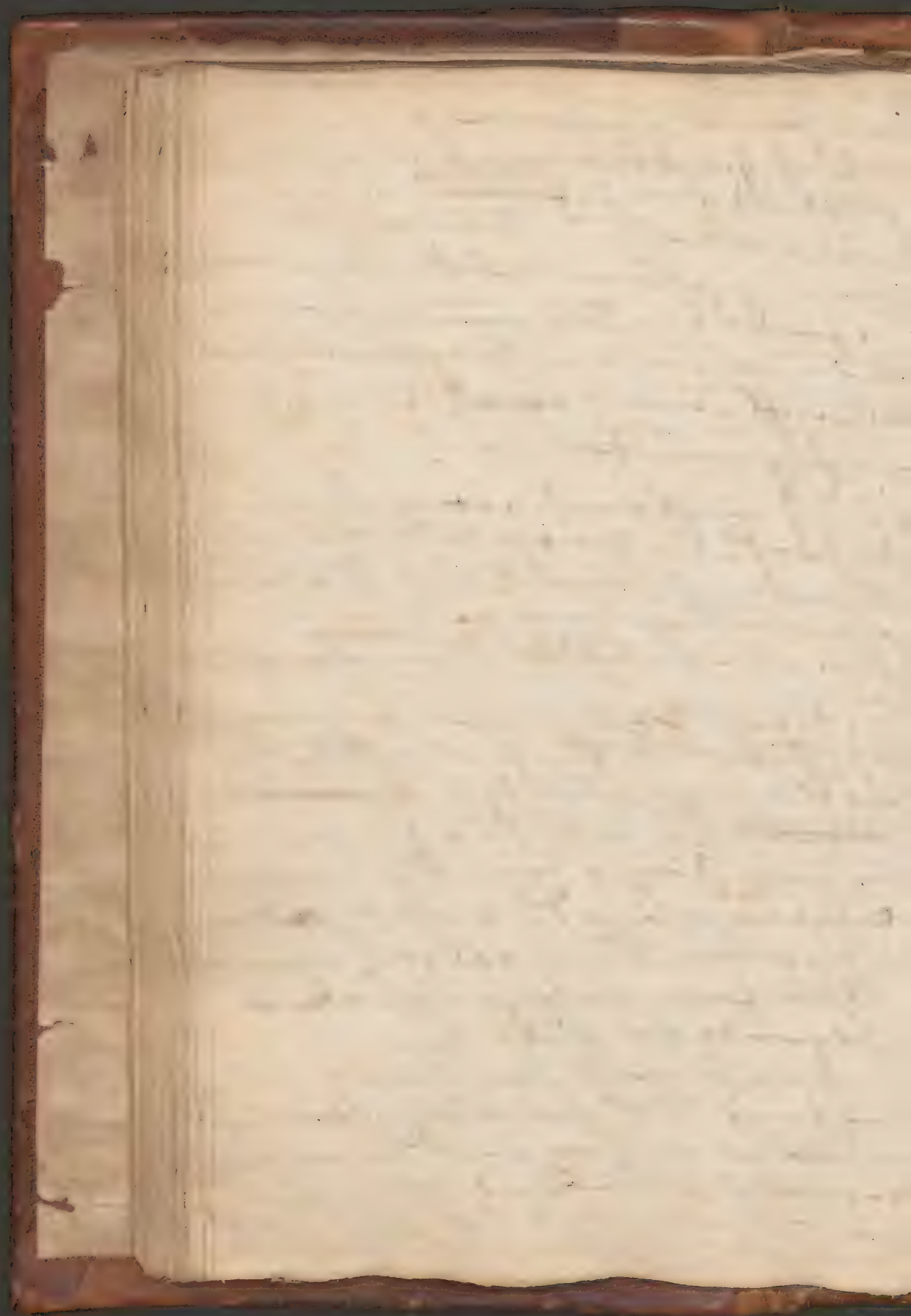
2^d - of fixable air - It may be
attained from ~~the~~ ^{spontaneous} of an
acid & alkali in their combination
from inflamⁿ. outst^d when burnt
as fuel &c. - It is much heavier
than common atmospheric air
& though coming occupies cavities
in of ground &c.

3^d - of inflamⁿ. air - It may
be prod^d by zinc & vitriolic acid
It is also generated in the body
at least it has been said so -
It is much lighter than atmosph^c.
air

Phlogiston is a name given
by Lavoisier to the principle of
combustibility. ~~By the~~
~~By the~~ By the of this gas results
by decomposing air, their respective
calces are prod^d and by adding
phlogiston, these calces, assume
their former, or original ap-
pearance of metals

From the above that lime water
we find that of lime is decomp^d
it seems as if respiratⁿ was just
something in the way

It has been said that as the
respirable matter when retained



in the body was infectious, it
was necessarily a large quantity shd be
sent off by the lungs, as the surface
of the body was not sufficiently
large - but this appears by no
means the case

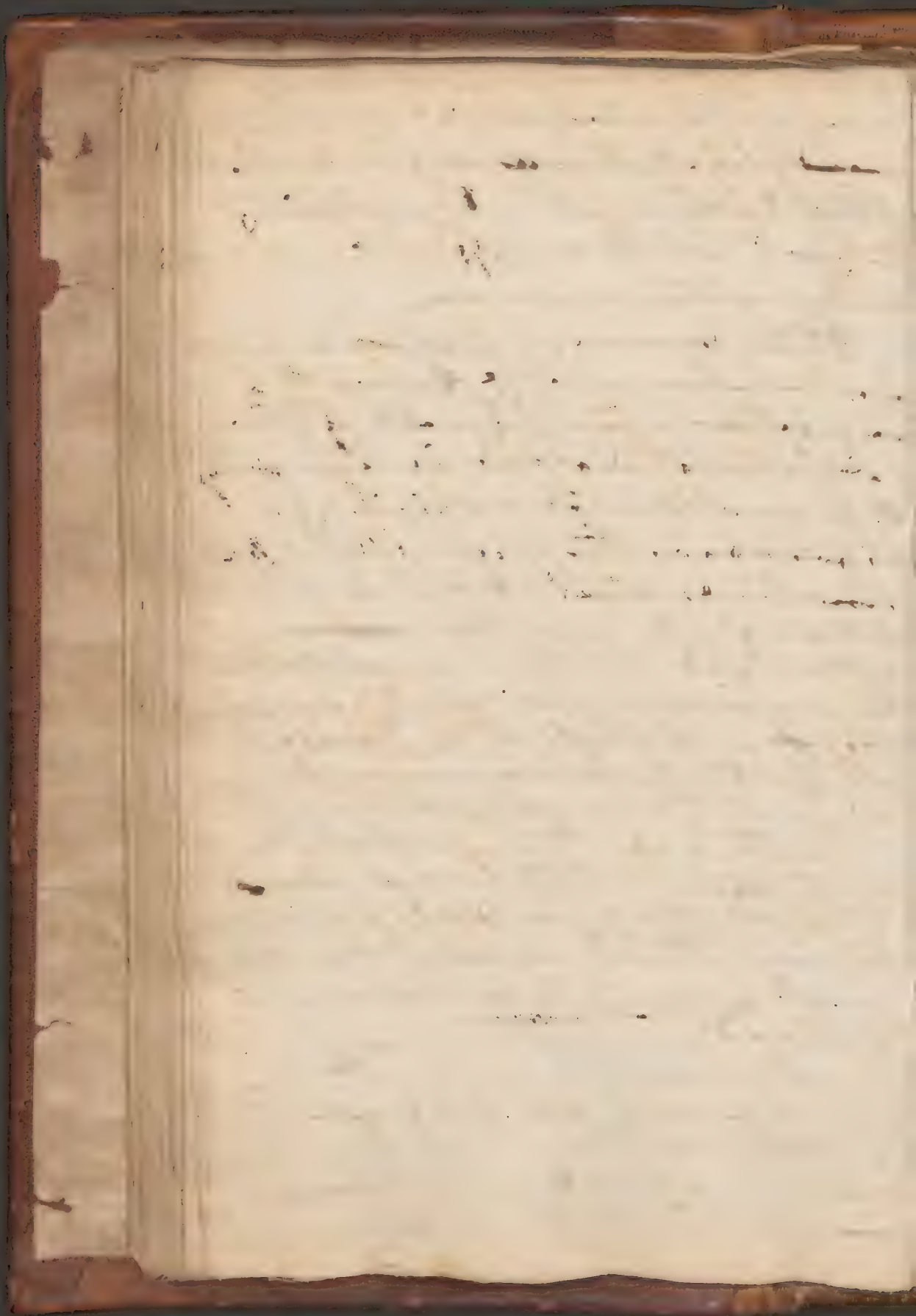
Others have imagined that
if air taken into the lungs by
its friction against the cells of the lungs
produces animal heat - but it is not
so great a heat as is produced by
thermometer shd be generated -

Others have contended that if air
taken in to cool the ~~whole~~ heat
of the blood - but this must certainly
be an erroneous opinion

Nor is it likely to condense the
bl^d in the pulmonary arteries
as some have supposed

Boerhaave thought that the
air taken into the lungs, attracted
of blood - for accord^g to him, all
diseases arise from a
great a viscosity or thickness of
of blood

Others, conceiv^d
if the air was taken in with the
air, gave it a florid red color to
of blood - & others that there
was an aerial acid taken
in - but these opinions don't seem



well founded & for of there
was an aerial acid, or aerial
~~acid~~ nitre, its quantity wd. be too
small to have in any respect
to prod. such an effect on the
bld.

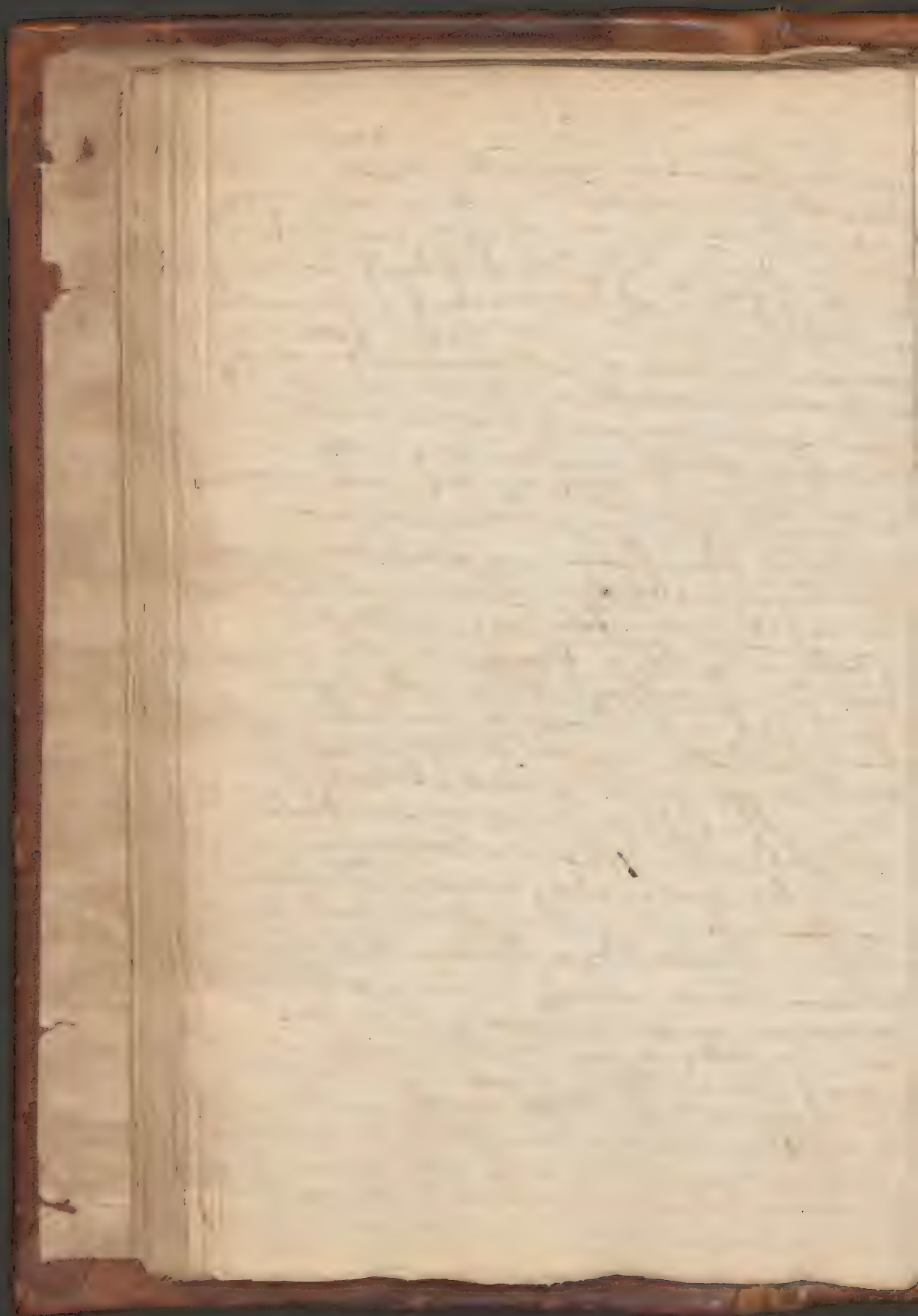
Dr. Fortyce says, that as every
excretion we make, & every ex-
halation we give. The Powers of the
body, the atmospheric air serves
to renew the life & spirit, just
as food does the strength. He
imagines that if air taken into the
lungs, after going thro' some process
as food does in digestion, or something
of its nature, is taken up by the
arteries - and mix'd with the blood.
Mr. C. scarcely appears to inquire
in his own mind whether this
is the case, or whether if. air does
not get on the bld. thro' the
coats of its very fine capillary arter-
ies. interesting of circulation

a. The mind & stomach are
very much connected. but
whether it is of. self & of. soul, or
not, Mr. L. does not say - Haller
seems to have an idea of this
kind - and Van Helmont declares
it's upper office to be so -

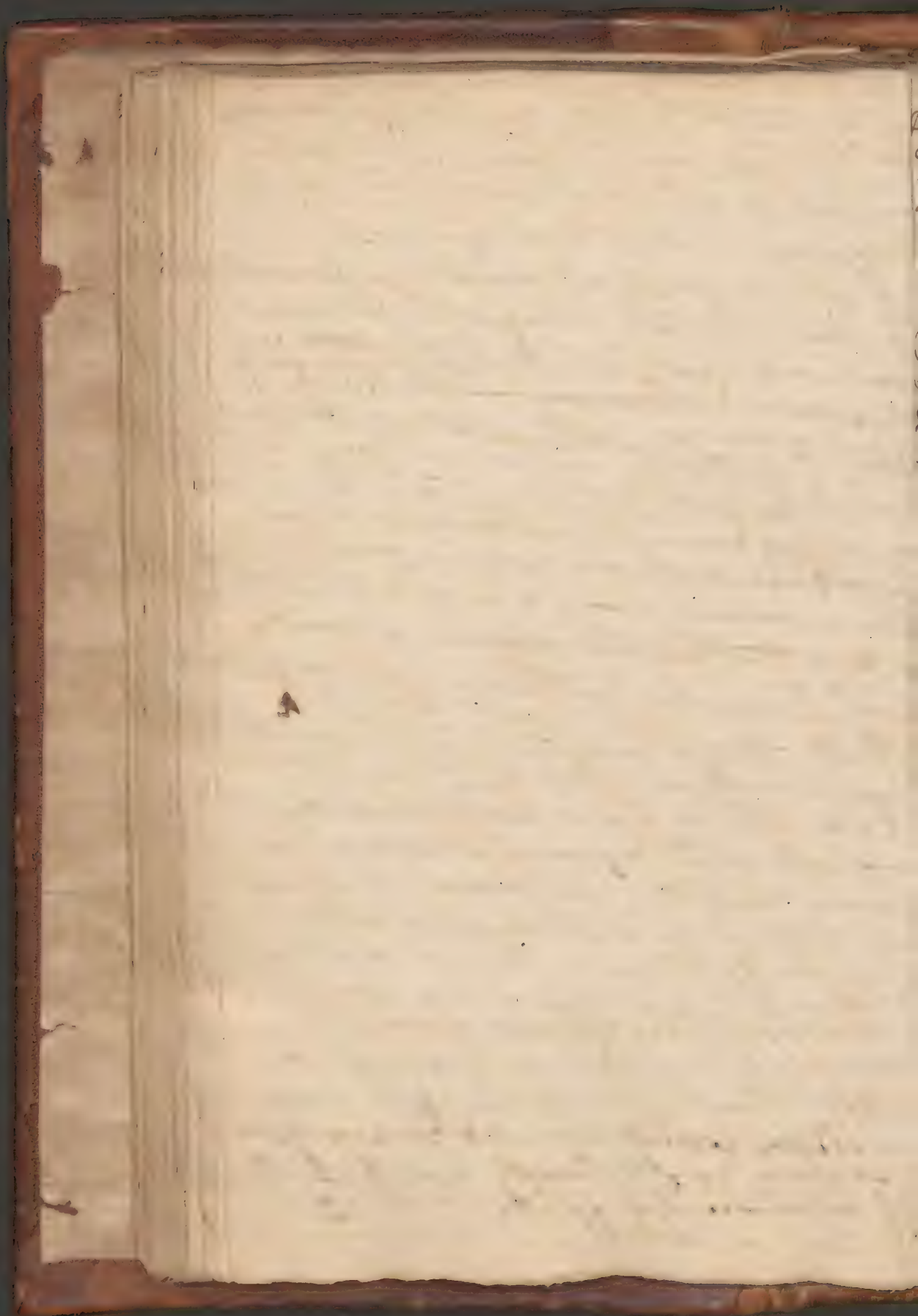
b. & That Intemperance of f. & Greed
may not be prevented -

18. The Physiology of Digestion.

The quantity of fluids are continually
wasting but very considerably it was made
they should be renewed - In most nations
where their religion obliges 'em to fast
for several days, Nature & of fluids is very
evident from its appearance &c. &c. seems
and this proves the necessity of delicacy
a gentle tendency to putrefaction - They
have not a kind of putrefaction like
the imputrescence of food - There
is sufficiently evident a
the stomach appears to be not of
animal life; for when it is dead -
no one function is properly performed
The disagreeable sensations attending
hunger, seem to be intended by
Nature to oblige man to take
food for support of the body - If
I had no pleasure in eating, it
very probable we should long ago
do it, so far as to procure all the food
Young people require more food
in proportion than older ones who
may be remarkably accounted for
by the a larger quantity of blood
& form the solid & fluids, than to
sustain these when their growth is
over - There's not a doubt
but the body is constantly absorbing a
quantity of humors, & food &c. a great
deal seems to be still more in the
to maintain than hunger - In quadrupeds
instinct seems to be a proper kind of
food - but this may be broken thro
thus a horse may be made



fish ——— Man is omnivorous
probably that his want of either good
or veg. food may not breed his
death — as he may live on either
happens to be in his possession
It seems generally allowed by Physic-
& Physiologists that man sh. live
with animal & veg. food — ~~not~~ for
he has the teeth of both carnivorous
& ruminant animals. ^{Anim.}
Food gives courage & more nutritious
than vegetable — Thus we find that
those ~~Indians~~ Indians of live on
veg. food are more timid than
J. Indians, who are bold & hardy.
There seems not a doubt but that
were ~~more~~ naturally inclined to
live on one another for we find
of carnivorous an- ^{shin} than animal
Fish appears much more easy of
digestion than either an. or veg.
food — Mr. C. has known people
afflicted with dyspepsia who eat
nothing, that we agree with. ^{the} stomach
except fish — tho' they were the
lightest kind — There are
very few people who can
live on suppers with. accus. ^{of} ^{of} ^{of}
& unassisted during J. night — This
Mr. C. thinks is owing to no
saliva being secreted during
sleep. it is certainly necessary to
the digestion of J. food — I



Water has been given to
be of most perfect fluid for drink
Dr. Fortyce says it does not stay
in the stomach long enough - but
Mr. L. is not of that opinion

It is so extremely persicuous
(as some say) when is it of such
singular service in malignant
fevers &c. - Many have said that if
Bark is given along with it -
but it is freely given by itself as
a cordial - Whether it is
good for jaundice or not is doubtful
for many have lived to 50
or 60 that have drunk a good
deal of wine, without any attack
of this complaint while others who
have scarce drunk any, have
had attacks of it - There are a
variety of instances of those who
have had the jaundice leaving off
without any entirely - who by it do
not get attacked -

The saliva appears absolutely
necessary to digestion - as well as for
the swallow of food -

Mastication is certainly necessary
to break down of food to make it
fit for digestion in the stomach - easier
There are indeed some animals.

(a) If the powers of the stomach
are as strong as they naturally
are, there is in it the least disease
was to produce activity. M. & P.
were taken place.

(b) The 1st is a pouch at J. upper end
of the esophagus as in quadrupeds
2^d of J. common stomach - J.
3^d - of J. duodenum - J. 4th - a peculiar
formation of a part of it - which may be
termed a stomach. Some men
have this power like brutes - and
indeed it is as brutish to ruminate
as it is to bring up their food for
J. to be re-masticated.

12) In a hedge-hog, M^r. Hunter
found, that by artificially inflaming
of intestines, if apoplexy was arising
and that this he attributed to the
pinules given by the heat to the
body in general

smaller than the stomach & is very great

Heart does not seem necessary to digest
for it may be made to go on in
a stomach which has lost the greatest
part of its heat in the dead body, if
its living principle is not extinct.
It has been said that if gastric juice
was acid - but experience made by
Dr. Fordyce demonstrated it. It was
not - In the living body in its
natural state, both the solids
& of stomach are certainly clothed by
their membranes - It seems probable
that if cavity of stomach is contracted
so as to obliterate it almost, & the
intestines, otherwise pines &c. and
will be thrown out - cuts & fatty
substance made rancidity in stomach but
never perfectly strong - but never in
those who are

Digestion goes on in many and
better in one season than another
Heat Mr. Gentry says that only
increases digestion as far as it
proves a stimulant to the system
(1) The ferment in stomach was
said to be of 3 kinds - visous -
acetous - & putrefactive - It was
also said it inflammable air
was sent by this means - In
Dr. Crichton & Dr. Woodhouse
Dr. M'Bride were the defenders
of this opinion - They made

a) For their satisfactory quality
the three perfectly corrected

c) and especially subtt. an wh
d. gathie joint does not act
as hollow balls of wood, when
thin &c

sent after. w. ordinary food
putting 'em into vials &c. - but
they ought to have made
experiments of gastric juice - w.
they would have found - for
we find that gastric juice dissolves
food, without suffering it to go into
last ferment. - Many kinds of
putrid stuffs are used as food such
as venison & many other dainties
without accusing any putrefaction. - as

It was said of it of stomach acted
by a prodigious power - like the
gizzards of fowls in breaking down
food - but this has been refuted
by grapes &c. put in Hars' gizzards
whole - w. of least half w. have
broken down in 10

Prof. Herman stomach & g.
st. of vipers may be seen w.
Mr. C. imagines of them of
arteries, or glands, or follicles have
never been demonstrated - The
gastric juice seems to act on it
in a manner of substances gradually
dissolving 'em - till it is food in itself
digested - Mr. Hunter found
it of gastric juice w. dissolved the
stomach itself - w. of the stomach
stomach itself

re by of garden

In J. Late Dr. Hunter's collection
 are several pieces of a silver
 needle found in the stomach
 of an ox. It seems to have been
 broken down in J. gizzard
 but not in J. last acted on by
 J. gastric juice
 Mr. L. has found the stone corroded
 in not less than 20 or 30 children.
 He supposes it in them J. gastric
 juice is a much more powerful
 solvent.

Salmon
Sage & Althoea. To have
a 1st glass in forward part
as well as mustard, spices
cheese & sugar. ~~Warm water~~
as well as wine &
spirits in a med. quantity
or of contrary warm water
brought to it & having on the
least during cooling, or study
each other a meal. — J. M.

the matter of stomach, Mr.
L imag. fr. what he has said
even to day, is a rotatory one

(2) Impresma may be either on the
inside of the parchment or of matter may
be found on its outside.

of the Thoracic Viscera.

The 1st accident may happen to
thorax, may be a penetrating
wound. If it is made by the ribs
or broken ribs, & penetrating the
peritoneum & lung, then suppuration
will be produced & may be very difficult
over the body, in the cellular
membrane.

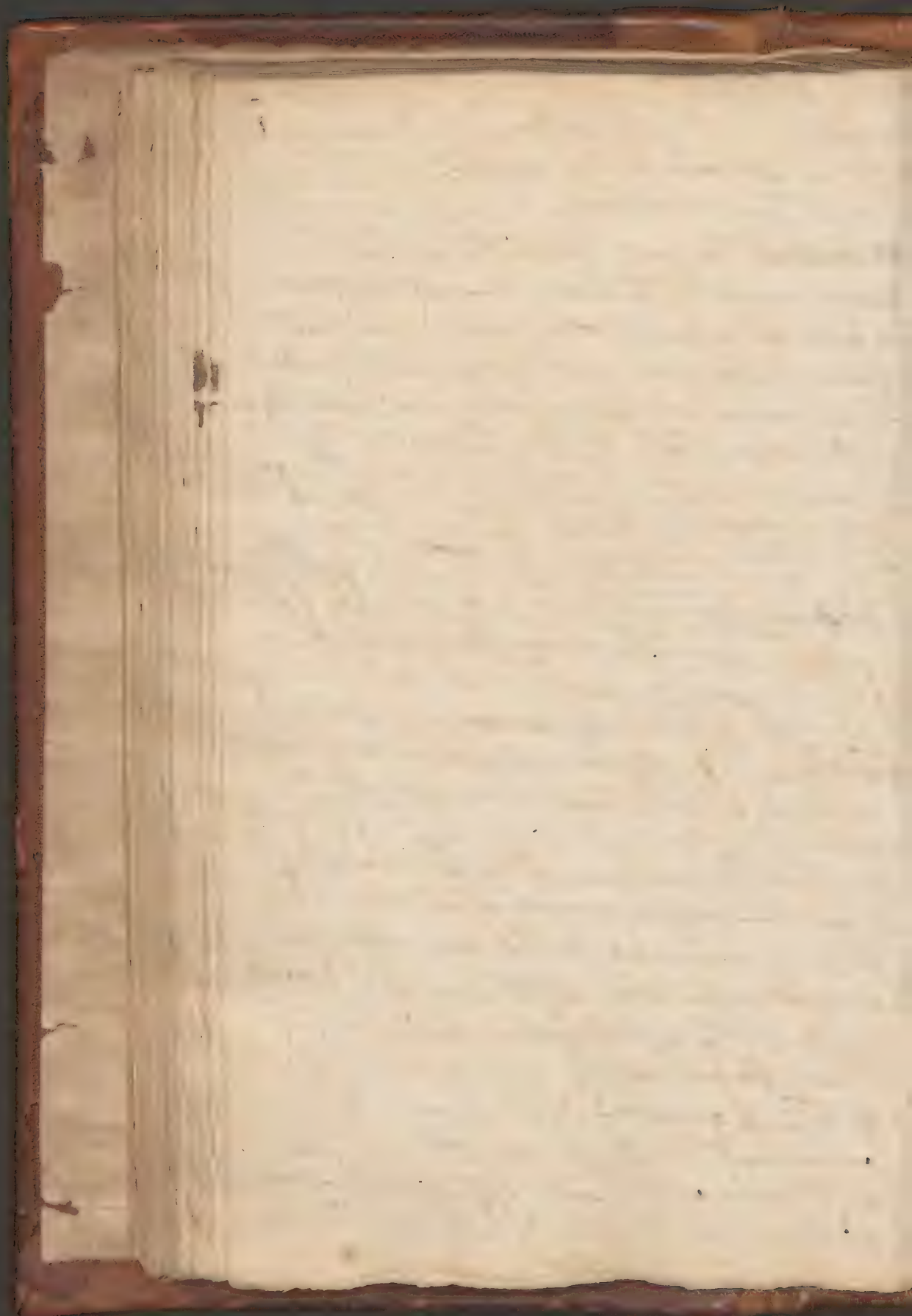
Inflammⁿ may be produced but
this is generally terminated by
adhesion or by suppuration. —
In ~~the~~ ^{the} J. Pleura, it is called
Pleurisy. I have seen several
had. It had been supp^d. to have
J. Pleurisy while living, for all
J. common signs w^{re} present,
but the heat appeared either
in J. Pleura or lung, to make
them imagine, inflammation had
taken place — J. Pulse is hard.
Full & strong. Bleeding may
be used a little after taking away
12 or 14 grs. of Phlogⁿ & it seems
relieved. It is not advisable to stop
upright to sweat.

The Empyema — I am H. J. is
formed in cavity of the chest
w^{ch} suppresses the visⁿ, occasioned
by inflⁿ — It is most frequently produced by suppⁿ

(a) collected in J. anterior median

(b) I have recommended to be
in such cases, but Mr. C. thinks
we had better wait, till Crater
herself makes an expedition to
get rid of matter — This is very
rare if J. has got to be exposed —
& corrodes it

The Hypocholester is a collection
of matter in the Thorax - I have
seen occasioned by inflⁿ in the
Thorax being checked early enough
so that it is less frequent. oblig^d to
terminate either in adhesion
or suppⁿ or secretⁿ of matter - w^h latter
then happens - & terminates in this dis.
It is recommended to make a puncture
into one side of the Thorax - but
this is a very dangerous operation - for
if one cavity of J. Thorax is pierced
& J. Pleura is injured. J. for latter
may be mistaken for J. for J. for J.
and the other side not less cap^d.
hence J. respiration. death must be
J. consequence
Some J. Pleura is very much
thickened - but can hardly be
called a dis. - or it may be
called an instance of J. given
by M.C. - Some J. pleura is
very hard the mediastinum to
J. esophagus - and corrodes it -
(4) It has been said that people have
lived with any pericardium but
M.C. thinks it never happens
He imagines J. adhesion - of the
pericardium - w^h is some. so firm
as to appear a part of J. substance
J. heart & J. heart itself occasions



over a membrane etc

Diseases of the Lungs &c.

Subst. frag. sticks in the
trachea - It can be neither
bracketed nor pushed down
branchotomy must be immediately
performed - for if respiration is
entirely stopped, it will be
more fatal in 3 minutes -

Rad. tonsils are so much enlarged
as to impede gaseous bronchitis
must then whenever be performed
and if bronchitis will
extend over a great part of trachea
but if however more of trachea
fatal by putting a stop to respiration.

When the throat is cut, it is
better not to use any suture of
of sutured throat, as the interior
in fl. may prove fatal - It
is only necessary to take up any
corrupt arteries - & to keep the
head in a proper position by
a bandage & to keep the throat
air free & unobstructed.

Something larger & smaller of the
trachea is affixed & hoarseness &c
& consequence - for it is not
remedy in surgery

one Hooping cough is 111
- Numbness an ~~in~~ ⁱⁿ ~~the~~ ⁱⁿ ~~the~~ ⁱⁿ
chiefly of the glottis, attended with
an increased secret. from the
lungs - This is a specific infl.
as it is small - pag 2 c. - as it
most common - The ~~secret~~ ^{secret} ~~is~~ ^{is}
in the larynx & pharynx, & when
the best medicines -

The rough young hooping cough is very
elusive & difficult to cure -
It is liable to sore throat -
There is a roughness in the larynx
when it is caught & the
difficulty of breathing is very great
In Scotland this is much
more frequent - but with there has
been a great deal of complaint much
less than in England - (c)
In my opinion infl. first comes
on - then an excitation of
coagulable lymph w/ some
forms a new membrane

Dr. Barlow has never been tried in
this case - M. & N. in his at the
st. & might be of service in
cases of infl. - (c)
I should have been recommended
and we imagine a priori, of

Pl. Brought back for the last
page

Dr. Patt. is cap. of police and
sailing sh. in 1810. The
voyage however sh. be but
short. Sweeping in green sea
is of consid. service for it
the very much that I fear
of. I will not. It is occasioned
riding on horse back sh. grow
corrected. Mr. [unclear]
[unclear] the worst that I find
any applic. of [unclear]
[unclear] [unclear] [unclear] [unclear]
when there is metastasis for
given, sometimes are of [unclear]
of [unclear] - The latter [unclear]
[unclear] [unclear] may be [unclear]
given as [unclear], & afterwards
as [unclear] - Tranelly, espec. when
I mind is uneasy for any cause
is of great service. The south of
France seems the best climate

Asthma may give for [unclear]
affection. I. lungs losing their elasticity
[unclear] and I. air cells [unclear]
an interm. [unclear] may fall on
I. lungs, & occasion it. In this case
an emetic of [unclear] [unclear] [unclear]
[unclear] [unclear] - I. [unclear] [unclear] [unclear]
of I. heart is inflamed & [unclear] to
[unclear] [unclear] - w. & [unclear] [unclear]
[unclear] [unclear] [unclear] [unclear] [unclear] [unclear]
[unclear] [unclear] [unclear] [unclear] [unclear] [unclear]

They contain no trace of
any of the usual symptoms of
of trachea as there is no real
connection between of. & of. &
trachea - The effect here is actually
mod. & appears to be accas. by
stopping of air in some measure
so as to increase the impetus when
this pressure and in expiration
Brachistomy of. can be kept
of suffoc. is to that place -

Pulmonary Consumption may
be accas. by various in the
lungs - or by of capture of bl. vessels
of. infl. of the lungs
this is all of the nature of of. infl.
membr. catarrh - of. infl.
of. lungs, blood cannot be sent to
lung of. for of. 2 or 3 days - but
forward Mr. C. Kinkus, A gun of
does harm - Mr. C. gun of
cyping & saving of. & applying a little
in catarrh there is a secret of
white or yellow mucus - Small
cases of opium - sarsaparilla &c.
seem the best med. - The mucus
may be however for. but, by
its being yellow, or very white color
the blood is bl. and for its
drawing out -

B. See of subject of Pulmonary Consumption
is not to be further

(a in 2 or 3 months or so more
weeks —————

sect. 5. 1) Mr. Strophilid.

There are indolent swellings of *g. nippa*
new. then on of more swellings
of lobes of *g. ear* - a part of species of
of *g. tunicata* conjunctions - *g.*
shall not of the glands of the neck (we
are not hard - salt. to suppt - this last
a symptom - as it is a very frequent one
during nothing / the smell
it got appeared - then brought the
supper - comes out and after a
efficiency of matter, or an ichorous
one by discharge - Mr. C. thinks
of *g. hairs* are more subject to
complaint than girls - some of *g.*
mucous glands are considered
tissues to be a dist. of the lymphatic
system as it is the least of the
some part of it where it grows -
Dr. Monro inquires if it is deep
seated in *g. bones* & is afterwards
extended to these parts - The way
symptoms is of white swelling of *g.*
three-joint - it seems a very frequent
one - The joint of *g. ankle* & of
all other parts are somewhat affected.
After some time the parts become
red, & very shining - It goes on to
suppurate then to ulcer - & if it is
deeper & more in ankylosis, more
fatal going - The fist. last in the
joint is also are also sympt. of it -
The former of these occurs on
hairs & hairs, & is a more certain

a person's support of those who
live in a climate similar to
ours, and be affected with this dis-
ease as we are - but it is not the
case - for it is by no means so
common a dis. in Holland, as in Engl.
It chiefly attacks people of a fair-
white complexion & white - thick
light hair &c. But it comes
happily on of darker complexions.
Mr. Hunter does not regard it
an hereditary dis. - but Mr. L.
thinks it may be some of the
tho' it does not appear to be
generally.

Causes. - The principal cause
appears to be cold & moisture of
the air only cold, the inhabit. of
Russia & Siberia wd. be equally
susceptible of it, but we find it among
them it is a rare dis.

The influence of the weather in
England & its effect on the cause -
as the weather is so very variable
& transitions so very sudden, if
we may have summer, and
winter in the same day - Snow
coming is another cause - Haller
supposes the use of Potatoes a cause
How far they may be so when
uncooked Mr. L. does not venture
to say - but thinks they cannot
when the reverse - In short Mr.
L. thinks of whatever occasions
a dis. of the month may tend to
produce this dis.

the lymphatic glands are some of the lymphatic glands of the lymphatic system

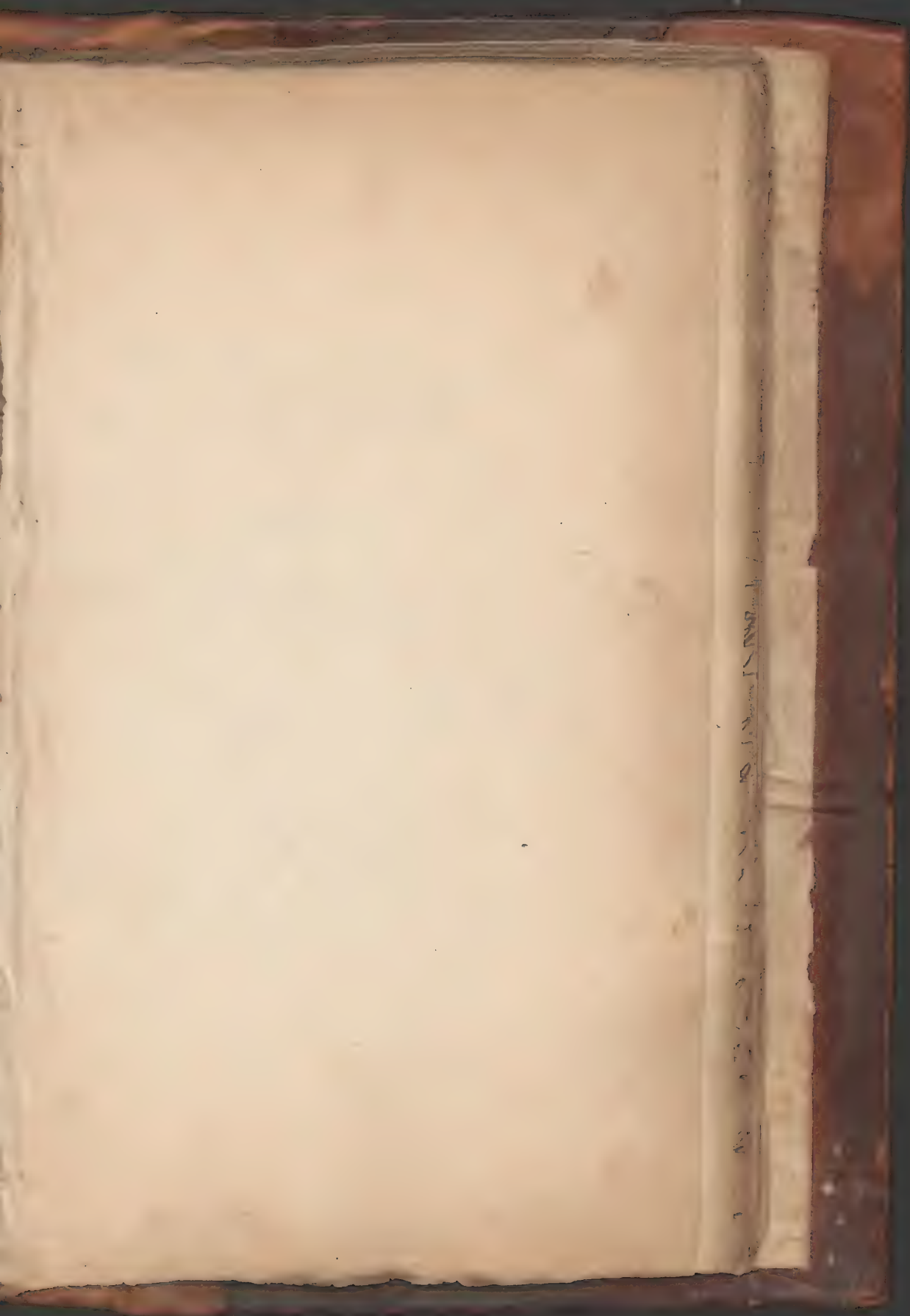
discharge of cheesy matter from the
lump (at least) there's nothing
consumed. with effect. with
any discharge of mucus. This
is then a dry cough & gives a
previous hardness. As if
consumed. advances. There
are signs - flushing after dinner
in the face - Whitish in the
center of cheek, & not suffused
over of whole face, as in
ulceration. Mr. F. does not have
night-sweats now come on
a few days. The
irregular. but if flushing
a night-sweats have come
on. Mr. F. is going fatal, indeed.
A point.

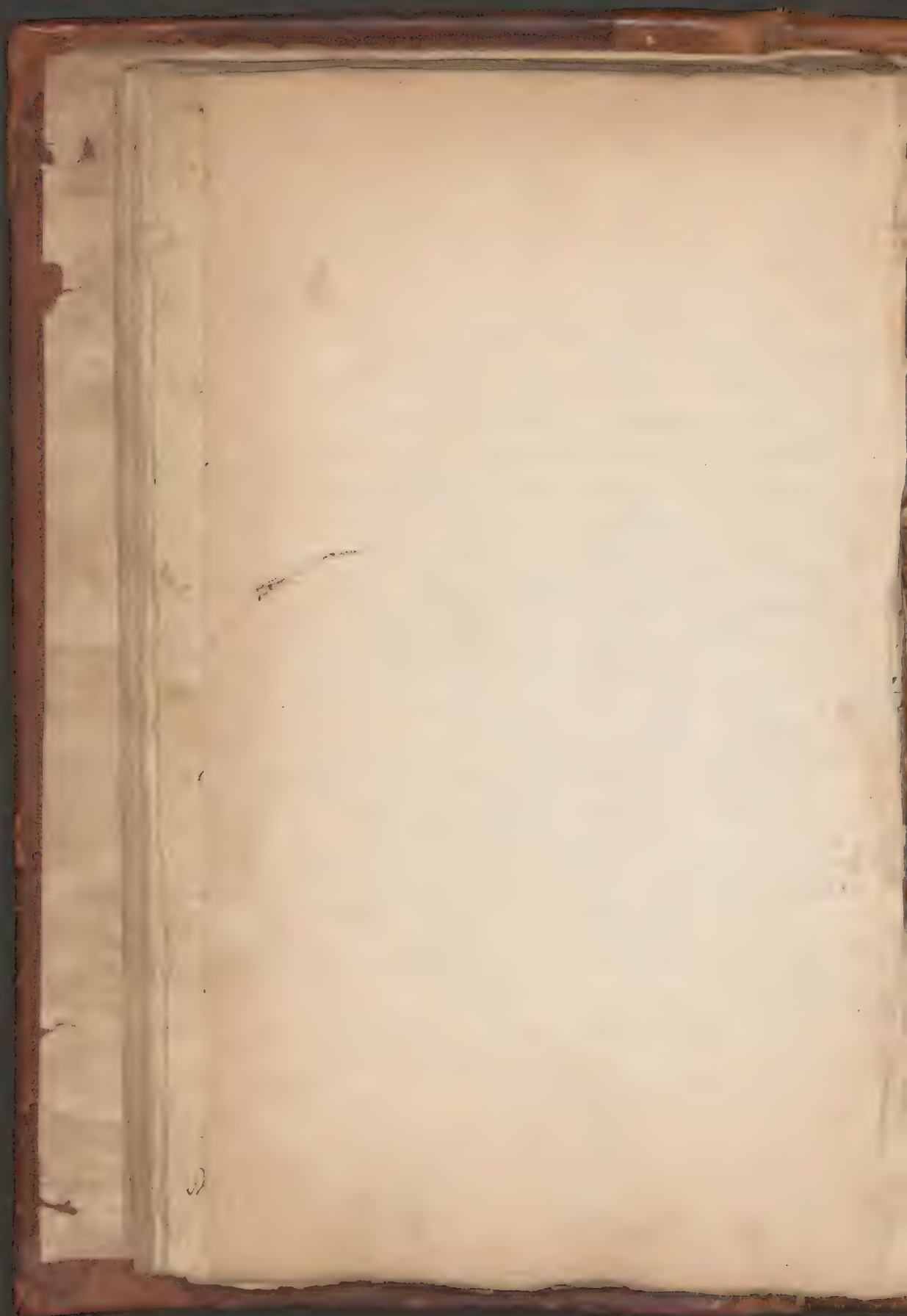
The appearance in of dead body
are, tubercles in the lungs
are scrophulous in gl. of
of air-cells, & are of point
the ulceration begins. This
is, & areas - such as difficulty of
breathing. The part affected
is under of pleura of the
rib. Foreigners have
imagined it. It is caused on
from of use of rib-cage. but
this does not seem probable.
Some metastases of fever or
of lungs, hard. A

one man many...
warding of...
lungs - but Mr. C. does not think
Chief anxiety seems certainly
to prod. it - Pulmonary consumption
Mr. C. is very apt to think may
be for infection for husband
from house & after their ^{wings} ~~aspects~~
the Dr. of the attending parents in I -
it, &c. - Emigrations can be
of little, or no service - (In suspect
tumors of L. of J. house is used &
& better) - The loss of appetite &
sleep must go on in spite of any
rest, the bulk of P. C. by exhaust
of living power - on the most part
by of other organs as well as they
Matter absorbed, supposed to be absorbed
& thus occur of Dig. - but this
Mr. C. contradicts -

The main effect in regard to
to be made at pt. C. food of good
digestion must be used & every
cause of weakness avoided -
sea ^{air} ~~travelling~~ - riding on horseback
are also to be avoided. The cold bath
never seems of service after I -
disorder once appeared - Bleeding
is to be avoided, or suffering more
debilities of body, & of course
inches of, but the less the food
taken - Acids in dining of infl^m
sum of little use - Aids
emulsions only do harm
by clogging & slowing -

... of ...
... but 6 drops of Laudanum
in the dose of lozenges every 5 or
6 hours - The principal remedy
Mr. C. depends on is a large blister
on the breast - The Cat. is to be
put in flame - I. Lady ...
... of the irritability ...
... Laudanum may be ...
drops - Food of better nourishment
as fish may now be used - A
Lasepavilla in consid. quan-
- of Cat. is to be sent down the
... sea - Mr. C. is in himself
when he had this ...
of low diet did much harm
... - But may
be given when I. Cat. is
recovered - as 30 drops of ...
Marrichidium 3 times a day -
... of skin - A
suff. quantity of cloathing in of
... almost ...
... has come as ...
... from ...
... of a ...
... breast - There are indeed some
... cannot ... in
... be rem. for a few
... re-applied ...
... it successful
... of the ...
4 leaves back ... (X) on I. left
side





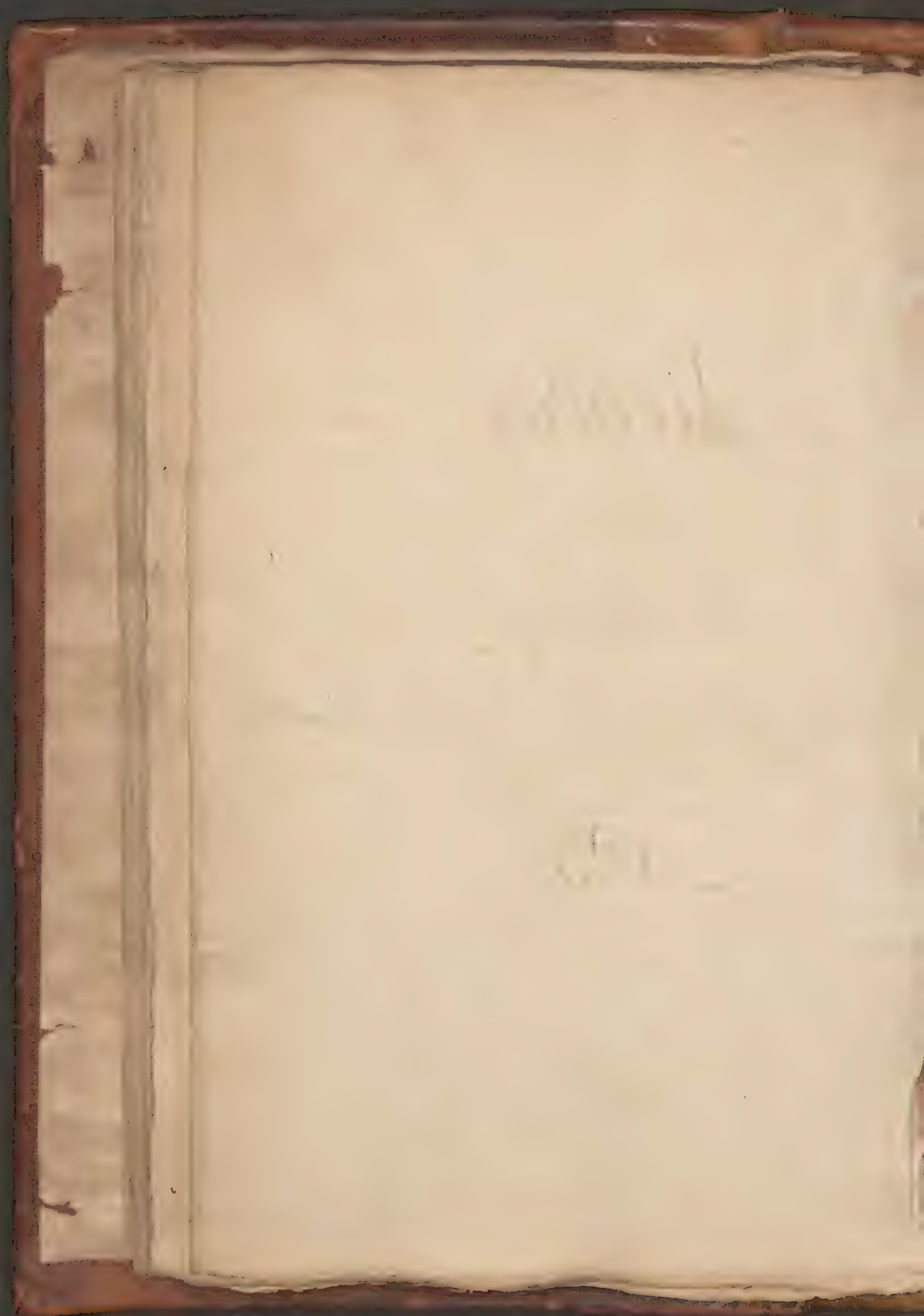
Lectures

on

Anatomy.

By M^r Cruikshank & D^r Baillie.

N^o 5.



Volume 5th (Anatomy of the Throat)

Same as for common colds - but in this case
no dirt is given out -
The Polypus of J. heart is with difficulty
disting. from water in J. pericardium
etc. There is genl. an inflam. of J. heart
difficultly of breathing &c. Polypus are
found in J. heart & have the angles
of valves, one may be sure the
blood, coag. after death, occupies it.

An enlargement of the heart, can
hardly be call'd an aneurismal
The ossification of J. diff. parts of the
heart seems to be an intention of
Nature to strengthen J. parts where
they are much weak. In such case
there genl. great palpitation, especially
if J. pulmonary artery - aorta - valves

The Oesophagus is subject to a great
variety of dist. Gutturous bodies, &
thick. of oesophagus, they must be
push'd down, if they cannot be brot
up except J. subst. be large, & much of
nature of J. gastric juice will assist
to dissolve it - as manly &c. In this case
a piece of whale bone or a blunt
hook, is to be used to bring 'em up.

Palsy of the Oesophagus cometh from
a palsy of the food passing into the
stomach - M. 1. in a case of J.
which formed a good effect, from a thick
baucie fry'd - In pressing of the
oesoph. occasioned the disease the same
method may be pursued.

and above it

happens either means. Diaphragm is a
below of cricoid cartilage of trachea
swallowing fruit stones is a very bad
custom - Mr. C. shows a prepⁿ of the
esoph. of a gentleman who swallowed
a plum stone, w^h stuck in the
lower part of it - & the vomited up
in 7 or 8 days - a pouch for the
dilatation of esophagus, into w^h all
of food of. was afterwards sent
and accord^g he died after that supported
a short time by clysters -

Pathology of the Abdominal Viscera

In pen^{al} that I mean of the ^{abdomen} ~~thorax~~
any of the viscera that are grounded
sh. be united if possible with. making
any stitches in it of cavity of abdomen
as they will act as if had been bad
& gradually

Peritoneal Inflammation may
be prod^{ed} from forces acting thro' it. intest^{al}
bag into it. cavity of abdomen - Mr.
C. relates a case of this kind with prod^{ed}
death - The treatment sh^d be chiefly
leeches appl^d to the abdomen - & a
formant of happy head - When
between the liver & stom^{ach} may
be formed in inflam^{ed} - either a
more fatal, if vomit sh^d take place
& rupture of stom^{ach} - It has been
said of peritoneal infl^{am} is in fact
but Mr. C. thinks otherwise - It

a siphonates from J. colon from a
collection of air with siphonates
of the intestine got into the cavity
of the abdomen

(a) When corrosive sublimate is
taken, the siphonates of the
intestine to decompose it

Ascites - Tapping is the only
remedy - Fox, Core - cream of tartar
have been recommended. The former is
very violent in its effects - Mr
L. advises a very small quantity
of Hyomphantides. This is a very
rare dis. - Mr L. never saw an
instance of it - The only method is
to evacuate the air by a puncture
of the scirrhosity of the liver, when
it rises is very much enlarged
gives the idea of an ascites and
apparent fluctuation. If a halp
is swallowed & remains in the
stomach, Mr L. supposes if the
mucus covering it will prevent
any action of the prod. as it lies
as is the case in the stomach. It is
better to avoid the use of acid
for some time. The gastric juice
will have no effect.

The Hickup med. (any freq) taken
by holding the breath & drinking
of a quantity of water of
Sassafras.

Disorders - The 1st thing to be
given after the taking of large quantities
of opium, is an emetic. White
sulphur is a perfect emetic in this
case to tartar emetic.

Arsenic prod. a very corrosive infl.
of the stomach - The best med. after
is olive oil.

Lead when taken into the stomach
is decomposed - When it is absorbed



of the stomach
part of the whole called
stomach

If caustic alkali is taken the
viscid acid secreted in the
in penetrating wound of the stomach
part of the stomach is kept as quiet as
possibly & if the stomach is kept by
etc. The patient may be inflamed
of the stomach as well as the colic
distending the stomach. The stomach
is inflamed when a person is hit
by a sword or gun. Mr. C. has known
4 instances. The stomach is
so into a copious suppuration
Mr. C. has known a case of cirrhosis



Lecture 52

Pathology of the Intestines.

Intestines sympathize with every part of the body - Thus it is affected by wounds of the head - Disagreeable sights - or wounds of any part of the body - Opium in moderate quantity increases the irritability of the Nervous system - in large doses increases it

some of the effects of the intestines are effected in the palsy, when no medicine whatever will produce an effect. This effect may be produced by wounds of the spinal marrow

It will may arise either from spasm or inflammation - Castor oil given in small quantities is sometimes of service in the last remedy

Side Taper - In inverted peristaltic motion of the intestines it is difficult to distinguish between the intestines & the stomach - We are however aided once, at which a full pulse is given by the pulse - The warm bath - vol. alkali - Opium - quinine &c. have been administered in this case with any good effect -

(of) produced as a modification
the same place, it may be cut
off with impunity, & if desired, the
faces will pass as usual
in the direction of the stream (provisional
bags or pouches) in some cases they
may be cut off in case of need

The iliac psoas may
be irritated by many diseases -
It is a strangulated hernia - the
this accounts great care sh^d be taken
to enquire whether of Psoas it
is a rupture - and if that be
I care of. But sh^d be examined
before the complaint is present
for - On examining here
there is a swelling in the groin
with sickness & vomiting -
cold sweat &c. we may conclude
there is a rupture - If this is
found to be of I. care, a chain
should be laid on the bed with
back downwards - that the
buttocks may be elevated - &
his back in an horizontal
position to favor the reduction
of the ~~hernia~~ in testicle - The finger
& thumb of one hand sh^d then
be applied to the ring of the
internal oblique muscle & the
reduction gently attempted with
the other - In hernia, if of I. care
or psoas it is, we sh^d be careful
sh^d be of heart & of intestine &c.

121 Cancer of the rectum freq.
happens. It is a most dreadful
dis. & going into off. Coll in a year
or 2. Nothing can be done
by medicine.

In Stricture of Rectum, suppositories
are of best service. A small tallow
candle may be used. Mr.
L. relates a case of this kind, where
he succeeded by this mode of
treatment - each of size of y. candle.
& after changing to soap.

Imperforated Rectum. Mr. P.
but seldom succeeds in this
case.

Proptose of Intestine has been
treated of. but Mr. L. thinks it
can hardly happen.

Some of mesentery gland
are enlarged & seen in this dis.
has been found takes mesenterica.

The encephalitis in many
states of diarrhoea rapid. The
tobacco clyster might perhaps be a
good remedy, or cream of T. peristaltic
in than of T. intestines so setting to
right of intestines.

Structures in intestines may
be of ~~the~~ ^{the} ~~kind~~ ^{kind} — ~~an~~ ^{an} original &
conformity. ~~the~~ ^{the} ~~mechanism~~ ^{mechanism}.
In part — ~~the~~ ^{the} ~~mechanism~~ ^{mechanism}.
The danger is, ~~the~~ ^{the} ~~mechanism~~ ^{mechanism}.
to be made use of will depend
upon the circumstances of the
case.

Worms have also been sup-
posed to occur. Obstruction in T. cecum.
J. M. L. does not think so
but there are recent morbid
in other common species — Dr. Hunter
thought it was not a dist. as he
observed it. The most healthy
child. ~~was~~ ^{was} ~~the~~ ^{the} ~~child~~ ^{child}.
is a morbid. but seldom exists
in intestines. tho' it does grow.
The ~~process~~ ^{process} seems to be of best in
this dist. — There is a sort peculiar
to T. rectum, call'd asciaides Pylle
saily clysters in this species of the
dist. seem to be best. — There are
other species of worms. ~~the~~ ^{the} ~~have~~ ^{have}
substantia.

Diarrhoea is often produced by
cold, moisture &c. — & metics
or charcoal appear to be of best
remedies.

Dysentery - In this case the
mucous & of stools are streaked with
blood & mucus - The rectum is
very tender on inspection to see if the
ulcerated or there's an appearance of
fungi all over of surface.

Pain is very injurious - Mr.
L first gives an enema, & then
small doses of tartar emetic &
then to keep up. When it is of the
stricture in intestines most

of happens either at the rectum
of colon - of sigmoid flexure
of colon - or in the rectum.
Ulceration frequently happens at these
parts - Some of the intestines have
quite a black appearance with
anemic inflammation and the color of
color is for feces but are infallible
marks (a)

Lecture 53? Pathology of the Liver.

The Drs. of the liver are supposed to be
C. tendons to be more supple than
they really are. - The liver may
be torn that by violence applied to
the cartilages of the ribs, notwithstanding they
remain entire - Mr. C. has a patient
of the liver for a man who fell on
his back, there is a liver was entirely
torn thro' with no very external
wound.

The liver most probably given
some of the

1. In the 1st they are green & round
the 2nd shows upward of 100 ft. in all
all found in the same gall-bladder

3rd in the liver may be
3rd of suppⁿ - 1st common
2nd serphulacis - 3rd an encysted abscess.
When an abscess in the liver
points externally it sh^d undoubtedly
be opened - but not otherwise - as
it may be dangerous - hydroc^{is} &c -
the stone is then - Bark & opium
are good med^s. with gentle purges, for
some time - but mercury is
far superior - and is now generally
used both in warm climates &
this country.

Encysted hydroc^{is} are frequently found
in the liver, that ~~have~~ loose & soft
subst^{ance} without being at all connected.

Scirrhus of the liver may happen
& continue a number of years
without any proving fatal. The
complaint however in general
terminates in dropsy, & sooner
or later, occasions death.

Mercury may be tried - ~~on the~~

Gall - Bladder - Practitioners
have long conjectured of the
existence of stones in the gall
stones - but without success - as they
are sup^{posed} to be in the gall bladder
without occasioning jaundice - though
now jaundice is commonly
The stones are very small but
cannot so long of one will about
the size of a pea.

12/2 ju - 11/1 spermatin cont. -

III. I shew one nearly as large
when a gall ^{stone} sticks in of ductus
com. In ductus of gall stone
chole is grad and consid pain
owing to f. distention of this part
The gall bladder is not recept
to life for there are instances
of people living who have none
Mr. C shew liver witht. of. last
appear. of f. gall bladder - Some
f. gall bladder of f. liver

IV. It may be occas^d by
f. obstruction of f. pore bilian
from inflⁿ of f. simple glands of
f. liver - from spasm of f. liver
it may be from spasm, spasm
must be given - as for the
in it care nothing can be done
as for a gall stone sticking in
f. ductus cysticus - or ductus
com. chole - it is f. most
common cause - Jaundice
may also be occasioned by a
circulatory pancreatic press on
f. gall duct - or for circulatory
of lymphatic glands about the
neck of f. gall bladder & duct
com. chole -

Treatment - Riding on horseback
Mr. C advises in every case of
jaundice & emaciation of f. liver
given as well as rub^d of f.

1. The first thing I noticed
when I stepped out of the
train was the cold. It was
a sharp contrast to the warm
climate of the South. The
wind was biting, and the
ground was frozen. I
shivered as I walked
towards the station.
The people around me
were bundled up in heavy
coats and hats. I
looked at my own thin
clothing and felt
embarrassed. I
needed to find a place
to stay. I walked
down the street, looking
for a hotel. I found
one, but it was
expensive. I didn't
have much money.
I was in a predicament.
I needed to find a way
to survive. I
thought about the
people I had met
in the South. They
were so kind to me.
I missed them.
I missed the warmth
of their homes.
I missed the love
that surrounded me.
I was alone now.
I was in a strange
land. I was a stranger.
I was a nobody.
I was a nobody.
I was a nobody.

IIIrd - gen. g.ines of follow. 2
uses in mutual friction

Op. Pulv. Radicis Scill. gr. viij
Argent. Viv. ~~in~~ ga. of Fat. un-
mucil. Gum. Arabic. Panee globule
dispareant, De in adde
Lous. Cynosbat. g. s. of Fat. Boles.

State some more succumbis -

Pancreas - In similitudo of J -
Pancreas, there's gen. of Pancreas
accor. to the rudiments - Little
can be done to be of any service

Spleen - In gen. intermittent
Gen. of Spleen is somewhat more
common, enlarged and more
than ruptured - Mr. J. accounts
for it by there being a greater volume
of blood to J. Part - If a large
rupture is ruptured in the Spleen
must ensue - If a small one
of bleeding will of course be slow
but into of cavity of abdomen
will gen. of prove fatal in
no great length of time

In Hist. of J. Spleen there's said
to be pain in J. left shoulder
as in J. in flame. J. J. Liver
Lute mentions a great number
of infl. & supp. in J. spleen after
quartan intermittent - There's
unfortunately no more

Mr. Abernethy seems the person
of usurpation and ^{there is} want of honor
to was it, retention

161 E. 10th

symptom, it will enable us
to distinguish when dis. of spleen
are present — In females
dis. of ovaries of spleen
may be mistaken for those of
spleen — Mr. L. once experienced
this mistake himself —
Dr. Gray of spleen may happen
or spification

Diseases of the Kidneys.

(4) Retention of urine, (when
there is no secretion) may happen
when this happens, it is said of
if secret. of urine is performed
by diff. parts — as by cords of
arteries — muscles — &c. — They know
this is not of care —

Retention of urine may happen
from 2 causes. 1st contract. 2nd
ulceration &c. —

(6) Diabetes — In this dis. there is
a consid. sec. of pale urine of
a sweetish taste — This ~~case~~ has been
said to be from of retrograde
motion of chyle, when it comes
& comes to of kidneys — but Mr.
L. disallows this — and says, it is
only a greater determination of
chyle than usual to of kidneys
rather than to the stomach

Μελέτη τὸ πᾶν.

of antec. 1/4. part and advenies
recharb in some all doles. How
far this may be just M. G. does
not pretend to determine. Some
have used surdificies - others a thing
se - but it is seldom of any of
em prove successful.

Bloody water may come from
of kidneys, either owing to relaxation
a stone rupturing a vessel -
or an increased secretion. Bld
forcing from of exhalants - and
allowing of red particles to pass.
~~It may happen of various ways~~
~~from of kidneys~~

Lecture 54th Pathology of Kidneys cont.

The principal objection to nephritis
is, if we regard it, distinguish whether
there is a stone in the kidney
or not, before we begin our
operation. Besides, if there is a
stone, one, from of it, bld vessels
about of it, is - except the large
artery.

The kidneys are subject to common
in the suppurated inflame. They
may be mainly affected with the
inflame. It is not the same as the
M. G. thinks in the suppurated inflame.
They may be indeed in the

(-) The kidney is in some instances
much thickened in its enlarged state for
six - in others reduced to a mere rind
by absorption - Mr. Abernethy shows two
specimens of this opposite description -

in the very vessels - but the
testicle itself will do that.

Drury & the Kidney is not an
unfrequent disease - It may contain
a great number of years with it. From
Data 2.

(4) Contraction of Kidney shrinks itself
with no apparent cause.

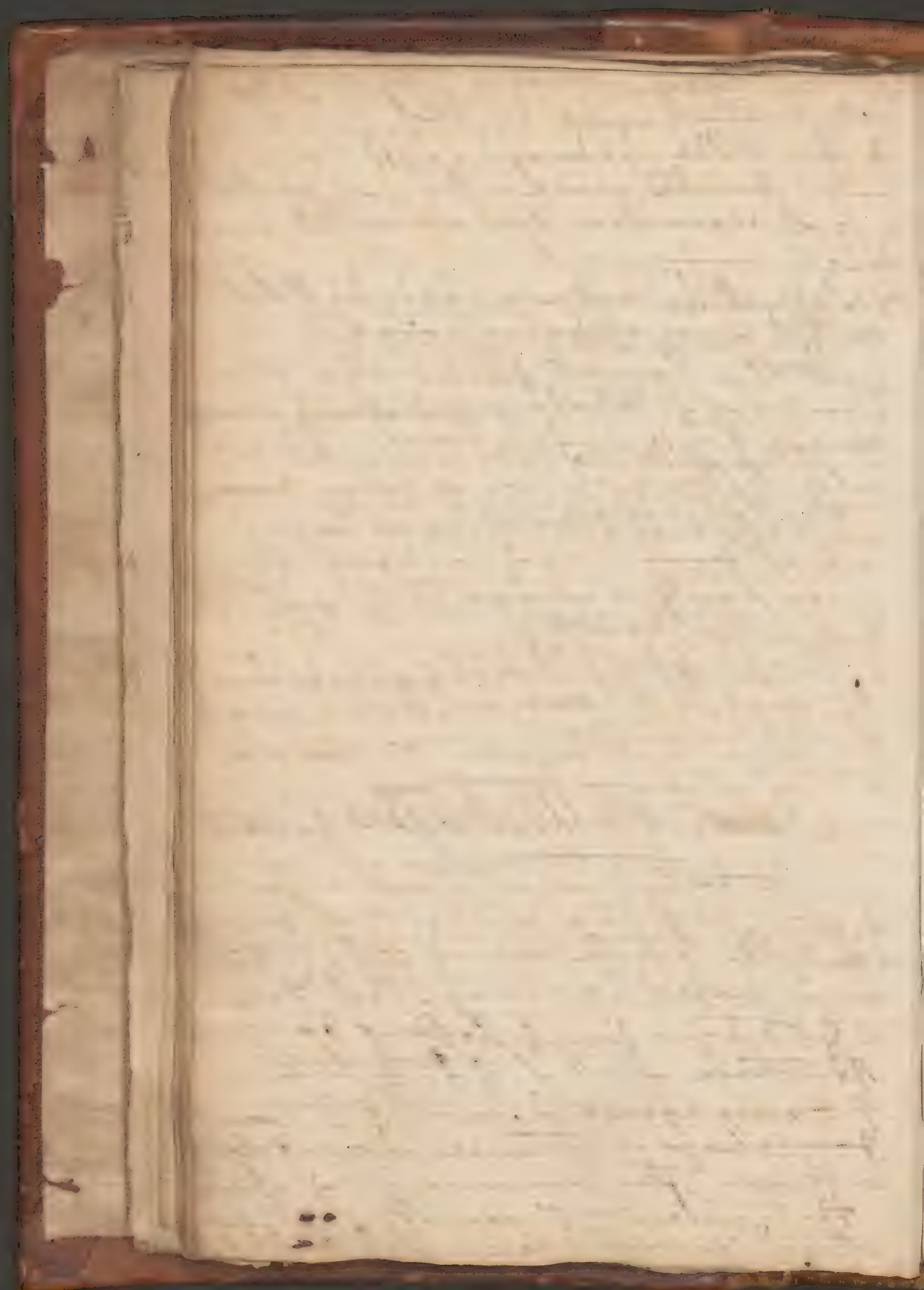
Stones - Concretions are found
amongst of tubular form. but
more frequently in of pelvis. The
color of these stones is very various.

The Tape Worm Blanus says is
sometimes found in of Kidney - Mr
L can hardly conceive it to exist there
but rather doubt it.

The abscess of of Renal capsule has
been said to occasion pain like
of Cholera - Mr L never saw it
occur.

Pathology of the Male Organs of Generation

The testicle is not never proper
of ring, but remains above during
life - The testicle & ring Mr L thinks
are in perfect harmony - That there is
a good time for of keeping down
of of testicle, about of of of testicle is
from any cause prevented from coming
down before of time, of ring down
& it ever after remains in of abdomen.
The tunica vaginalis is not seen
after of of coming down of of testicle.



and the cavity - and in this early
of intestine some falls down into
of tunica vag. & comes in contact
with of testicle - and comes of. vagina
congenita - The int. afterwards
prevents of union of the tunica
vaginalis

The chimney sweep's cancer
as it is generally called, is originally
an ill-looking sore of the scrotum
which afterwards spreads to the groin
lumbar glands &c. - It generally attacks
boys about the age of puberty -

Hydrocele is frequently produced from blows
on the testicle - as in riding against
the horn of a saddle &c. - The
hemorrhoid Mr. J. Hunter is never
heard till after the palliative cure
for of the hydrocele, owing to ~~some~~
a hemorrhage from the ~~testis~~ incision
except ~~the~~ of the ~~testis~~ in of
scrotum - The tunica vag. may
go into suppuration & gran. (as after
of radical operation) & cure of the
by obliteration of cavity - The tunica
vaginalis becomes very much
thickened in hydrocele of long
standing

A hemorrhage may happen from
of enlargement of the vessels of the
testicle

Varicose Veins of the testicle &c.

1a) When ϕ in Flam^n is purely
rhlymanous —

of the causes - but ^{my} J. M. C. ^{thinks}
for J. 1st as for any other - Some
they are accidental of tightness of the
waistband of J. breeches - How this
sh^d. happen it's difficult to determine
for it cannot be from pressure on
J. short - It has been recommended
to cut them out - & M. C. does not
see any reason why we sh^d. not.
The testicle sh^d. also be suspended
and J. waistband of J. breeches not
worn tight - The testicle may
suffer from pressure - either from
varicose veins - or any other cause
of pressure prod^y absorption -

For Ham^l. J. J. Body of J. Fertil
some of the ^{causes} - but more freq^y
of J. epididymis - It may be either
of J. spermatic or cancerous ^{in nature}
Whether it is an infl^{am} of J. body
of J. testicle, or epididymis, of same
nature are to be employed

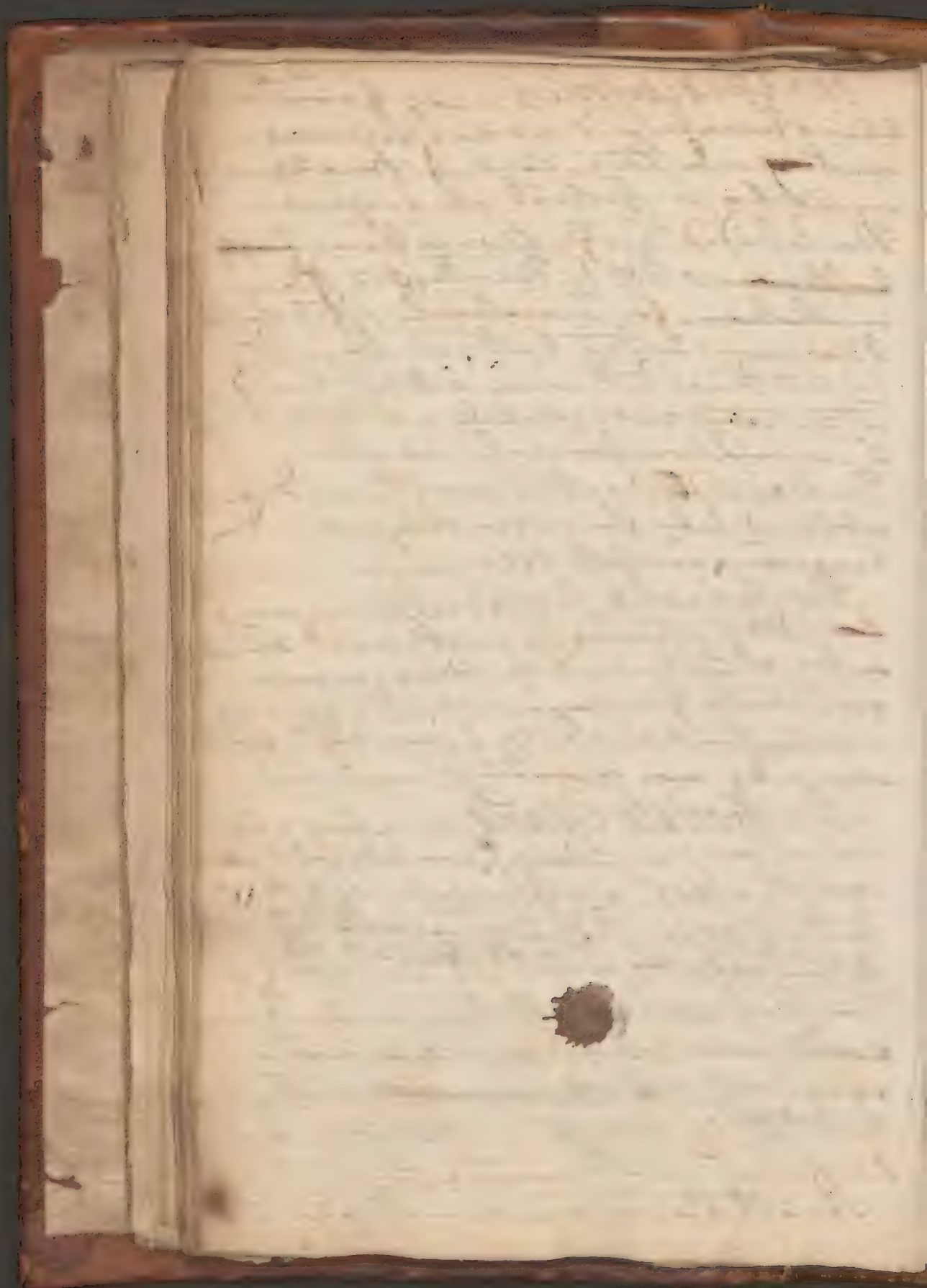
(a) M. C. recom^d to be used by breeches
& application afterwards of a poultice
of poppy-heads - Opiate system may
also be of service, especially if
~~inflammation is present~~
~~the inflammation is of a serious~~
~~nature~~

(a) Mr. C. relates a case where Dr. Butler pushed the catheter thro' of prostate in attempt to introduce it into bladder. The prostate was evidently enlarged in this case. The pt. died a few days later in these cases, death occurs on 3rd day - I did in Mr. C. as well as several others.

The Epididymis may form a
blind pouch - and no vas deferens
existing - In this case, J. Male
must be impotent at origine
The Epidid. is frequently enlarged
~~happens~~ & Mr. M. thinks it is often
mistaken for scirrhus of testicle
Mercury is the best remedy - Mr.
L. tells this Patt. wear a truss lying
with strong mercurial ointment
& cured him for several months -
The vasa deferentia sometimes end in
a blind pouch originally - and
are impotent

The Vesiculae Seminales may,
~~be~~ Mr. L. thinks, sometimes be scirrhus
or be solid - but he has no
authority for saying so - He gives
an instance, where J. was aff. of
one side more than the other

The Prostate Gland may frequently be
scirrhus & enlarged considerably as
sometimes occurs - a suppression of urine
In this case, it is extremely difficult
to introduce a J. catheter (a) Mr. L.
has a J. elastic catheter, (made of
catgut) succeeded in 2 similar
cases - The cicuta etc. may be tried
but Mr. L. thinks, nothing will
be of any great service
Small Stones are sometimes found



a stone wth J. canula —

(a) A grain of Iodine Sublimum & poured
in depth ounces of water makes a very
good injection in this case —

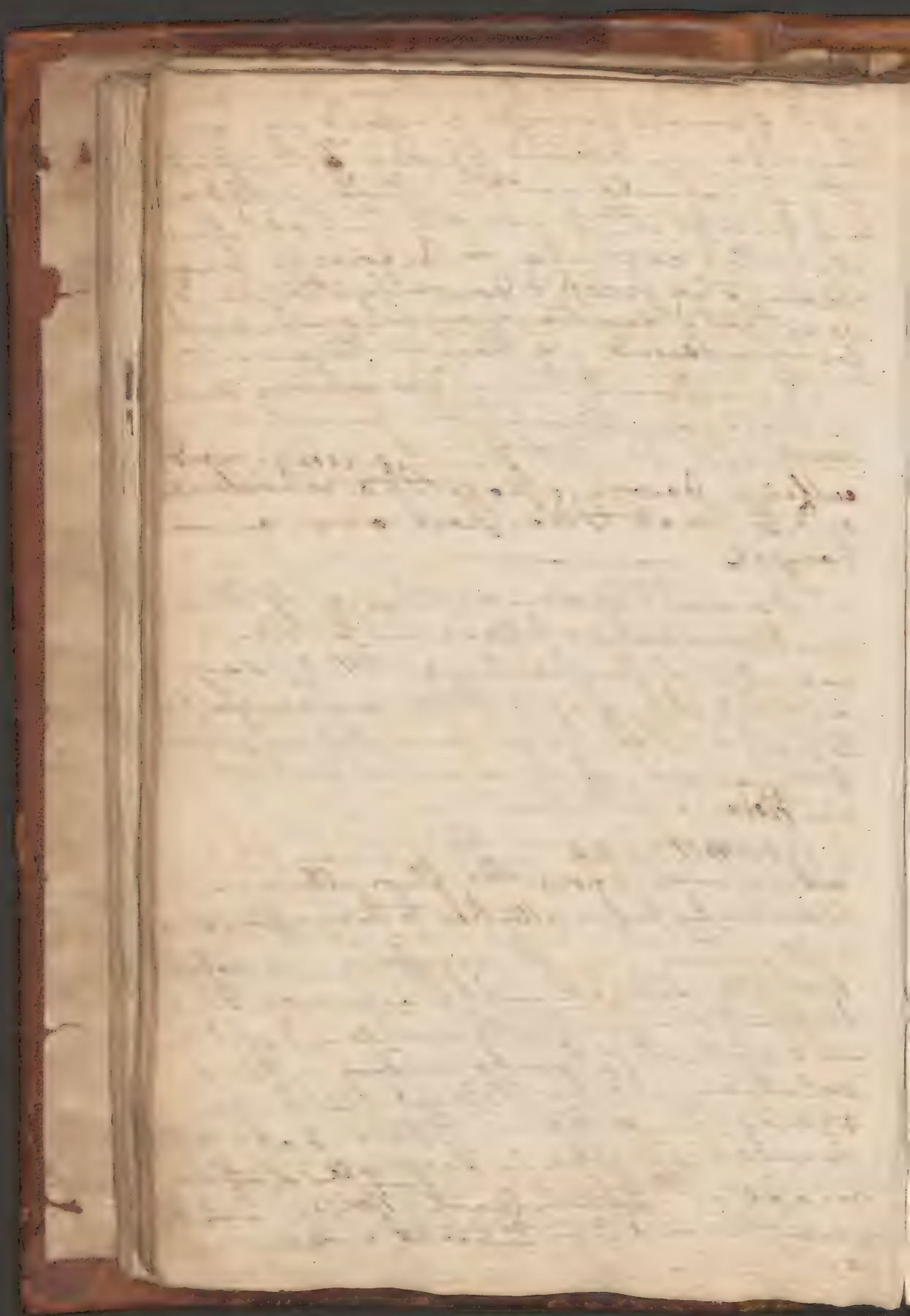
but the cautery is more of use in a
a pt. of small forceps enclosed in a
canula - A kind of probe is introd.
into the canula - which is then withdrawn
& the forceps is of. caustic introd. & moved
along the canula - The forceps are
then to be prep'd down pretty hard
so as that the caustic may act on the stricture
for a few seconds - & then withdrawn -

If neither of these operations should
succeed, an operation must be
performed - Mr. Hunter recommends
cutting down upon the stricture
and to treat the part on a
bougie

Some times haemorrhage of the
urethra takes place - In this
case Sp. of Turpentine Mr. C. says
injected up of. urethra never fails
to put a stop to it - as well as when
per os, if it can be properly
introduced into the urethra

Gonorrhoea - This may be
distinguished from the fluor albus in
Women by proper attention to the symptoms &c.

Mercury is not necessary - a solution
of white vitriol will answer the
intention perfectly well - It sh^d. be
used at least 12 times a day - The
solution sh^d. be Vitriol. Alb. gr.
vj & Ag. Pur. ℥ss - If this does not
succeed in 3 or 4 days - a solution
made with Vitriol. Ferul. ℥ss & Ag. Pur. ℥ss
may be used 3 or 4 times a day -



Chancre - In chancres the glands
of the groin are found in flame & but
not always - It may exist? They
are similar to those in syphilis on the
penis - for in it not never! There
is no such swelling - Mercurial debility
of constitution caused by & in weak
ones frequent lays of. bair. of mercury
consumption and therefore it's time
enough to give it when there
are venereal blotches &c - In
an incipient chancre of that has
only a narrow basis, if caustic
may always be used - but not
in spreading ones - It has a
broad base

Paraphimosis is a very bad
inattention in suffering of. prepuce
to remain behind of. glands after
washing with warm water &c -
It may be tried - & if
an attempt may be made
to bring over of. prepuce - If this
does not succeed, of. frenum must be
divided - If there is phymosis with
inflamed vulva (it is more part of
case in children) a small part of
of. prepuce must be cut off, as in
circumcision

Pathology of the Bladder

Notes in the bladder have been said
to be dissolved by Mr. Thompson's solvent
but in a case Mr. - states they were not

21 M. (relates a case of the inter-
mural N. y. bladder which has formed
a process behind the hold of the N. y. Omentum
indicated N. y. Stone - a stone of - at the
mouth of the

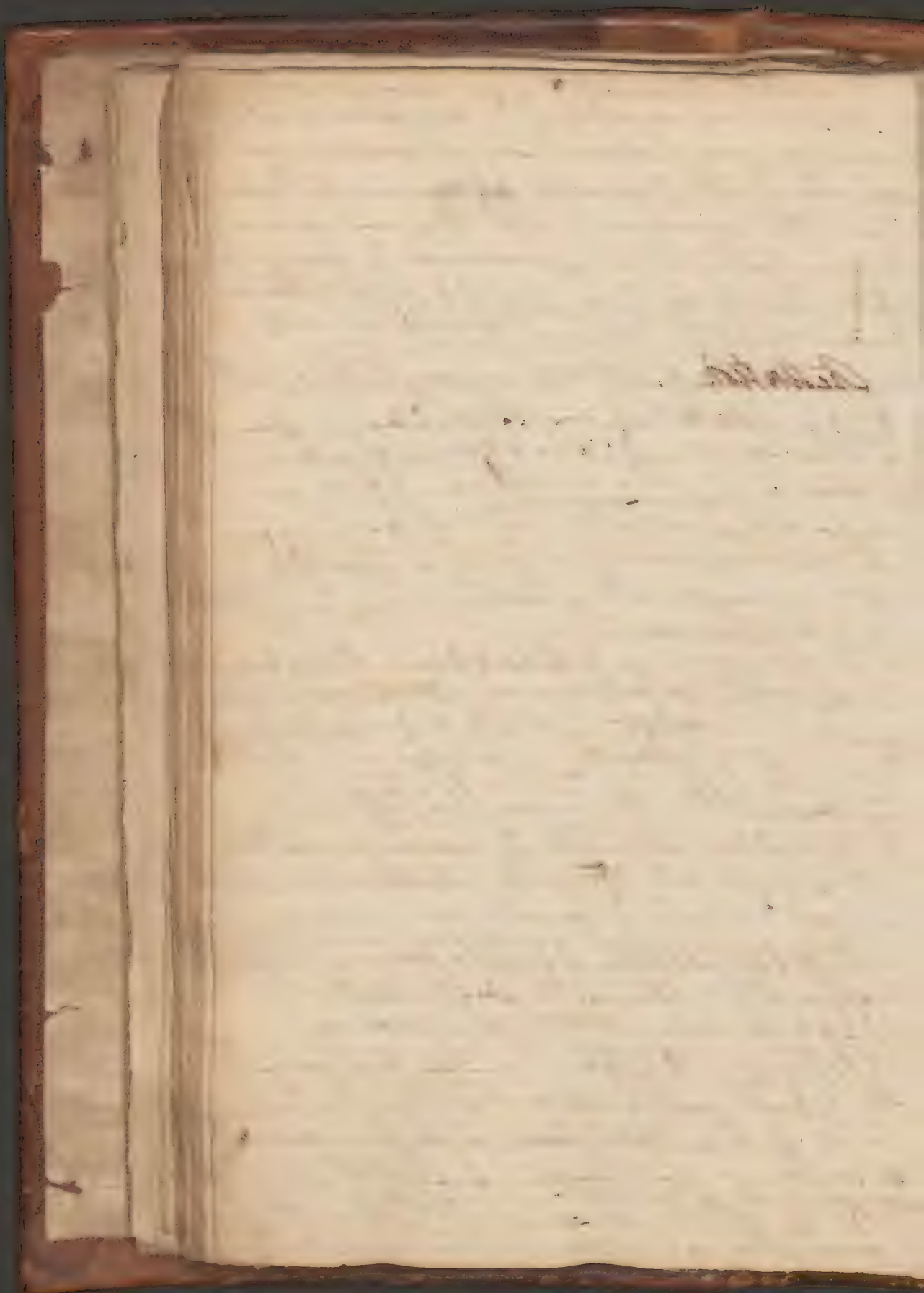
Small prostatic stones are found in the
of internal urethra. of bladder - and
may be mistaken for stone
searching with of forceps ~~often~~ in the stone
For this reason, Mr. H. makes
it a rule to turn round of forceps
after he has got hold of stone
previous to its extraction

Retention of Urine may take place
from inflammation of cantharides - from
a stone in of bladder - from
a stone in the urethra - from an
enlarged prostate - from spasm - from
a case of specimen is given a specimen
from sympathy with of rectum - by infl.
of bladder &c

In infl. of of bladder, bleeding
& antiphlogistic removed. must be
used - After introd of of catheter
if much difficulty has been in it
in the duct, it may be left in
of bladder - Mr. F. uses a catheter
with a bulb at of end, which is not
introd into of urethra

Mortification of of Bladder may
arise from distension - infl. of
head & horns in gangrene

Palsy of of Bladder may be caused
by heart falling on of part - In this
case of bladder loses its functions
& death is very soon brought on
After propp. of of internal duct
hasalytic abg. some time



in pregnancy, the opening sh^d
not be rather large than small
& prevent laceration ~~in pregnancy~~
as in *S. phascioides* & consequent
sloughing. When there has
been fistula in perineo - but
especially if it is present, M. G.
will not record it. Specatⁿ for it -
stone ~~for~~ as if inevitability is
generally very great.

Lecture 5th

Of the Female Organs of Generation

The female Vulva M. G. Thunberg
is originally of a diff. size to male in
that point being broader ~~than~~ & of
smaller of. Vulva being wider - There are
2 ligaments pointing of head of *S. shield*
backwards of which call'd *S. sacro-sciatic*
ligaments - Whose U. said by some
Authors of *S. Vulva* was enlarged by the
acts of coitus & Dilating ~~S. Vulva~~ but if
this is of use it is only in a very small degree

An Anatomist may be consulted
by a proposed woman to be married whether
if distortion will affect procreation - It
will in some. In *S. phascioides* *S. sacro-sciatic*
shall be purged into cavity of *S. shield*
angle of the Vulva - Some of the Viscera
of *S. Vulva* will be enlarged by some
accidental conformation. But it is not
easy to judge if *S. Vulva* is distorted
in its position & motion

The Ancients were not at all exp^t with
internal parts & generation

(a) This appears about J. 14. 15, or
16th year of J. ruins at J. same time
They both appear much sooner in
warm climates — The longest
figure of J. ruins remains, in
all same position & sides —
Cubica

(4) In low manner the plexus uterine
of Winslow (called by M. J. coppa
Changiora sagina) is full
of blood quite distended at certain
times

(a) The Statians say of Diana ^{her} ~~was~~
of. half moon or pierced as an
emblem of chastity — that the
of ancient marriage, at J. shape
of the hymen — w. They said was
semicircular

The external part of gen. is of. reg.
pubis, symphysis pubis. This is covered
with soft, setaceous hair, called pecten.

(a) The clitoris, is situated just above
of angle of of. pubis. It has of. crura
which terminate in a corpus spongiosum
and a glans call'd glans clitoridis.
The clitoris is extremely sensitive
in its excited state. Below of. crura
clitoridis is seated of. urethra retiform
which sends down several branches with arteries
round of. vagina, & contracts it in
coition.

(a) The nymphae are 2 pieces of flesh
situated on each side of of. clitoris
magna towards its upper part.

~~The labia minora are 2 pieces of flesh
situated on each side of of. clitoris
magna towards its upper part.~~

At bottom of of. vulva there is a
cavity call'd vestibulum by Dr. B.
and an orifice of it, a foramen.

The perineum is divided into
anterior & posterior. The anterior
perineum is from of. foramen to
of. anus. & of. posterior from of. anus
to of. os coccygis. The musculus
urinae is situated just under
the angle of of. pubis a little way
internally.

(a) The Humer may be either transverse
semilunar - longitudinal &c. - The
spine may be straight, or curved
transverse going across & transverse

arranging in of product of the
heron again

the torunculae Montiformes. It is
gen. 7. said are large. D. of. nature.
of. by nature but M. L. M. in
Hall, otherwise. They are
says even when the hymen is
complete & sometimes.

The body of the Pelvis is divi-
into 2 by a broad ligament.

The Retroversion of. uterus -
is when of. bladder is displaced & thrown
the fundus uteri forward of. rectum
& of course raises the cervix.

The anteversion is when of. uterus
is thrown upwards by of. of. inflation
or of. rectum, at the fundus - & consequently
it lies downwards.

The Vagina is situated betw.
of. bladder & rectum. It takes
of. course of of. penis & is partly
adapted to its diameter.

The broad Ligaments are only
a production of of. Peritonaeum from
sides of. womb. These ligaments are
obliterated by of. uterus tow. of. end of
pregnancy - at of. end of. are the
fimbriae or mucus diabolica.

The 2 round Ligaments are for the
pos. lateral part of of. fundus uteri -
they are of. of. broad ligament.
The oblique sides of the
uterus oblique to the fimbriae
are chiefly lost in of. fascia lata at
of upper part of the thigh.

In the female are several small
glands situated near the labia minora
and sometimes made to grasp the
penis in the female. The labia minora
are small and fleshy.

(a) The prepuce covers about one half
of the vagina. The vagina is closely covered by
the prepuce at its anterior part but has some
space intervening between them at its posterior.

(b) The female may have discovered pregnancy
by the fullness of the os uterum which is
turgid and full of simple glands
which secrete the mucus.

(c) In the female are longitudinal & transverse
ridges called the plicae nymphaeae or
Bartholin's glands.

Sept. 5th Female Organs of Generatⁿ cont.

~~Thru 49 ligaments retained in~~
~~considerably some to be~~

The Vagina is comp^d of 3 parts
1. internal or ^{villous} orbe - is in throa
into innumerable folds - but what resem-
~~bles~~ is uncertain. It is glazed
a secretes a mucous coat. It is not
lubricated the Graafian - The 2^d part of
vagina is muscular and the
The third is a production of
the peritoneum (4)

The uterus in its ~~unimpregnated~~ state is of a triangular form - It has 2 projections of ~~width~~ of ~~length~~ ^{length} in its middle between these two, it is indented, or as it were by a ~~down~~ ^{down} The os tincæ projects a little into of vagina ⁽⁴⁾ - The uterus has ~~as~~ said by some Anatomists to have no cavity - and indeed this is in a great measure true for its side lie in ~~with~~ ^{with} contact with each other - M. J. imagines that in action of uterus its capable of dilating & sucking in of semen as an ~~an~~ ^{an} pump from its vacuum - The vagina is ~~of~~ ^{of} ~~crust~~ ^{crust} ~~where~~ ^{where} ~~a very~~ ^{a very} call ~~large~~ ^{large} ~~of~~ ^{of} ~~annate~~ ^{annate} - The cavity of uterus forms a nearly equilateral triangle ⁽⁵⁾ - The internal membrane of the uterus seems to be very diff. ~~from~~ ^{from} any other ~~cells~~ ^{cells} ~~that~~ ^{that} ~~of~~ ^{of} ~~epididymis~~ ^{epididymis} ~~and~~ ^{and} ~~covered~~ ^{covered} ~~with~~ ^{with} ~~thin~~ ^{thin} ~~membr.~~ ^{membr.} ~~of~~ ^{of} ~~its~~ ^{its} ~~own~~ ^{own} ~~cost~~ ^{cost} ~~in~~ ⁱⁿ ~~the~~ ^{the} ~~uterus~~ ^{uterus}

(1) The
... ..
... ..
... ..
... ..

~~... ..~~

(6) The
... ..

heavily muscular. It is called Fallopian
in honor of Fallopius, a physician of the
16th century. It was called by Dr.
Henderson *membrana decidua*.

The office of the Fallopian tube is
to convey the ovum, that they
will not just admit a bundle of
the particles from the male semen
therefore that they may be united & an
ovum cannot be formed. The
substance of the uterus is
beyond a doubt muscular, for its
fibres may easily be seen in
an incision that has been
impregnated for 3 or 4 months.

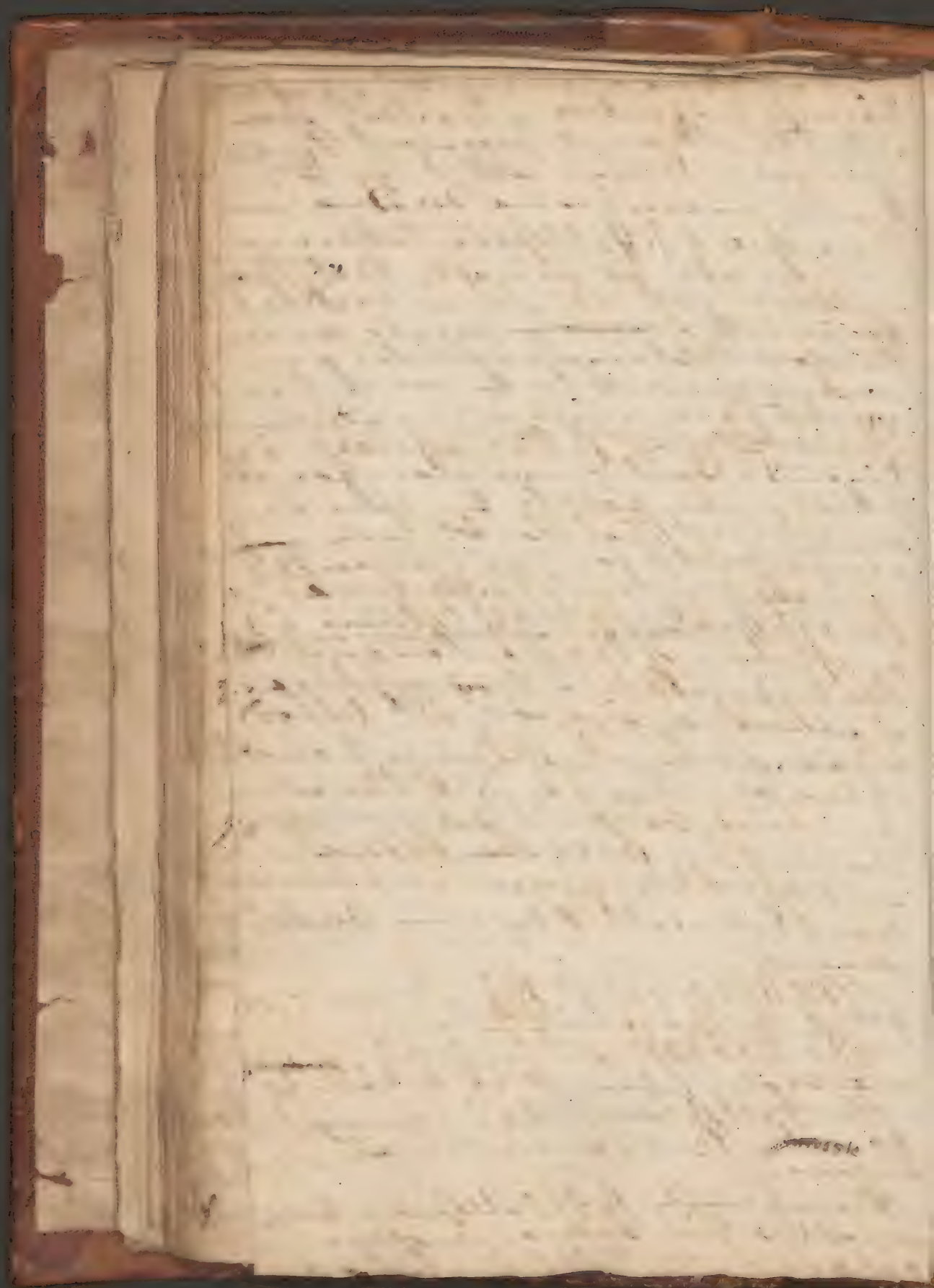
The external coat of the uterus is
a reflection of the peritoneum.
The hypogastric artery supplies
it with blood. It is a branch of the internal
iliac. The veins of the uterus
are very large. They come from
the inferior vena cava & the
inferior mesenteric & the
inferior vena cava. They come from the
inferior vena cava.

The absorption of the uterus comes
from the hypogastric plexus.

The blood comes from the
mesenteric plexus & the inferior
mesenteric plexus.

The Fallopian tube is composed
of 3 coats. The outer is the
peritoneum.

The internal of the Fallopian tube
is called the fimbriae or
fallopian. The Fallopian tube



has a sacculated appearance
The Ovarium is composed of veins
arteries & lymphatics & is very
when we cut into the wall of the
tube we see a network of small
vessels w. have been mistaken
by some Anatomists for a
but there are too many of them
for them to be of any use
16 freq

Lecture 55: th of the Breasts.

The sympathy between the breast
& uterus is very evident about
the time of puberty, & from that time
afterwards, for both of appearance
of the breasts, shooting pains &c
very generally felt in the breast
that is not felt about the time
of puberty, but during the time
they remain with women till
45 years of age. In pregnancy
the breasts become much enlarged
is changed & forms a brown color
which we call areola. After parturition
they are in a way in the secret
of the milk. In women of fair
the uterus, this secret is green
but a little so. As breast is
called by the Greeks *gasteron* & by the
Latins *mamma* *μαστός* - in Latin
mamma. In old age they
become white flaccid losing their
original plumpness.

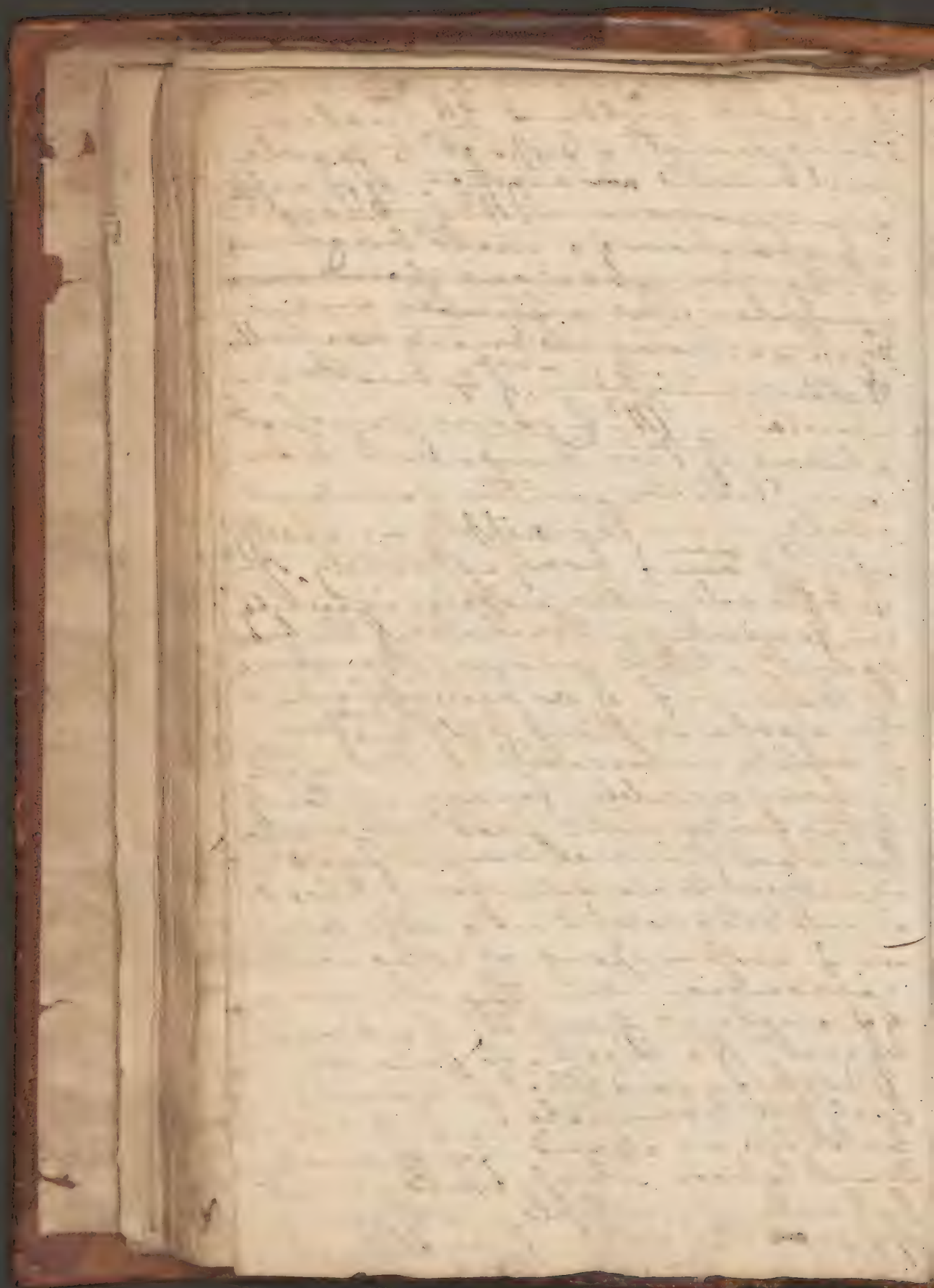
Some have supposed that the fluid
secreted by the breast is the same
as milk but not.

the house was a goodly one
and the garden was very
large and well kept
the house was a goodly one
and the garden was very
large and well kept
the house was a goodly one
and the garden was very
large and well kept

the house was a goodly one
and the garden was very
large and well kept
the house was a goodly one
and the garden was very
large and well kept
the house was a goodly one
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large and well kept

the house was a goodly one
and the garden was very
large and well kept
the house was a goodly one
and the garden was very
large and well kept
the house was a goodly one
and the garden was very
large and well kept

it is found milk & females -
There's someth' & dispo^{ns} to secrete
milk - and an erection of nipples
as in women - M. L. Thayer
a preparation of a male breast
has the sebaceous glands around
the nipples like a female one
Fish &c. have no breasts nor nipples.
Haller mentions of 4 breasts in
a woman - M. L. never met with
a case of this kind - but has
seen 3 testicles in the same
male - The nipple is exactly
situated over the bony extremity of
the fifth rib - The nipple is generally
in general in the centre of the breast
about a little greater than the sternum
Its shape is of a perispherical
The areola is about half an inch
of nipple in breadth - The nipple
is very sensible, for even a touch
of the finger will excite it. Its erection
but when this erection is passed
is not yet known - for of blood
is not extravasated into cells as
in of corpus spong. & corpora
cavernosa - The areola mucous
of areola is of someth' of a brown
or a blackish color &c -
It has been said that the tubuli
lactiferi terminate in the areola
but this is absurd - for the areola
is not a common site of the child's mouth
but only of the nipple - & of course
of course the case of milk
it has been said that



1st. *Me.* - Demonstrates of *J. asteris*
Arminius in acini

100

to the fact that the ducks are not in the
in the water. The ducks, I keep
will keep on land some & some
will admit the end of the stream.
There is no connection between
the ducks - for they do not invertebrate
(a) There are some few W. & A. ducks
creeping ducks or tubular back. i
diminishing till they come by
the ripple. There are about
30 of these ducks enter the ripple.
The reason of this will be not flowing
out when the breast are full &
with it child's sucking seems
to be because the nipple is in
its flaccid state - but if the breast
are very full this will prevent
the flowing of the milk.
The milk appears to be drawn
by the child from a vacuum, being
sucked in the mouth.

The Milk is secreted in a woman
in 4 years 2 1/2 pints to 3 pints in
a day - It contains a consid-
erable quantity of sugar - 3 1/2 of milk
is found to contain 10 x vij
grains of sugar -

Adrianus

Pathology of the Female organs of generation

Sometimes there are originally
no labia puerili - J. W. M. L. gives
an instance - This girl had not
her menses till 18 years of age
when an operation was performed
for the vagina was imperforate
she had every month before
from the time of puberty had a cer-
tain sympt. of menses - but no
evacuation - in consequence
but a large tumor was formed
in perineum - The operation was
performed by cutting down
thru the part into the vagina, and
afterwards presenting the lips
of the wound for
healing

Labia connata, or growth with
adhesion, sometimes - In this case
if labia are to be separated by dissection
The most common is of the
separation of the labia - The
Luller found that if bougie
introduced into the vagina was of
service - Mr. F. uses a piece of
half linen & half cork - when
this does not succeed giving
citricum - This is to be done
thru the flange of a candle - &
applied to the parts
to keep the edges of the parts if

Handwritten text in a cursive script, likely from a 17th or 18th-century manuscript. The text is written on aged, slightly discolored paper and is organized into several paragraphs. The handwriting is fluid and characteristic of the period, with some words appearing to be in a different language or dialect. The text is mostly illegible due to the cursive style and fading.

gang be left to their selves -
Somet. nodules are found
in the labia - G. M. L. has
seen 2 instances.

Varicose Veins are somet. found
in f. labia pud. - M. L. has seen
one instance - They are
pended as if they had cut out.

When the clitoris is very
large, it may be removed
The nurse is prepared by M. L.
to the ~~proper~~ ligature

The entangl. of f. Nymphae
The nurse should be used -
Somet. a sort of marks are found
on the nymphae - The ligature
may be used

The Hyomen is somet. so strong
as to require f. force, before f. coitus
can be performed - Or f. vagina may
be contracted - In this case a piece of
sponge being sh. is introduced & dilated. Repet.

The Prolapsus Vaginal is
when f. vagina comes down
but the uterus remains nearly
in its place - That is the internal
vaginal membrane of the vagina

The Prolapsus Uteri is when
f. fundus uteri is inverted, &
comes externally - The uterus
shd be returned & aspin^d used
both in f. prolaps. uteri & vagina
but these do not succeed. f. pessary
shd be used in the last

717.6 Lures a suppositious

h. We ought to be careful in history
to find the reason for
the cause in the nature of
things for the purpose of

about a fortnight & then he changes
otherwise calcareous matter
will be deposited - as

Ulcers of the Vagina may be
produced by various causes, as
Child's head occasionally passing
in some cases of *G. vaginae* colliquens.

The Polypus of *G. Vaginae* is 3^d
form of *G. uterinae* & comes
down by distention into *G.*
vaginae. These tumors are
hard & scirrhus, not hard as
to the touch but of soft & pulpy
substance & a narrow neck
of ligature may be introduced
by *G. Polypus* forceps -
However the Polypus may
be a broadish basis & is found
from the uterus itself & a ligature
will occasion death. For
such a case nothing is to be
done. Some Polypus contain
a great deal of blood & are
quite black. Others a small
quantity. When the ligature
is applied & on tying it ^{the} *pinus* ^{the} *pinus*
Cat. *pinus*, it ought to be with-
drawn, as we may suppose it
scirrhus - but if it does not, we
may attempt its extirpation by
of ligature introduced it & a *Clamp*
of *Polypus* forceps.

at right of. above of. above
of. above - of. above is
the above of. above of. above
above of. above

Lecture 59th (Anat. & Phys. Female Organs)

The ~~of~~ retroversion of ~~the~~ uterus it is said may be produced by distension of the bladder — but Mr. L. never found it occur in it may be found both here & Dr. Hunter when there was distension of the bladder along with retroversion of the uterus was also found. Mr. L. also found it to happen from some straining as reaching a great height with the arms, & by means of the diaphragm is pushed down in holding the breath & of course the uterus is retroverted at its fundus — Mr. L. says that of Cat. on her hands & knees kept as much as possible in an inclined plane — then introducing 2 fingers into the rectum — & if hand into the vagina, he pushes up at the rectum & pulls down at the vagina.

The Inversion of the uterus has never been met with by Mr. L. or Dr. Hunter but it is described by Sincet & others — and can only be good by theory. Mr. L. can hardly doubt its existence — (a)

The Inversion of the uterus may be occasioned after labor, owing to pulling too forcibly at the funis — In this case the placenta is to be pulled off immediately — & the fundus uteri replaced — for if these

a. Keller relates a case where he
had heard of an incision of the
uterus, which I do not see repeated
and where the uterus was found
was cut off - yet the Path. record
but M. G. disbelieves it

(a) There are 2 cases in which we sh^d. deliver immediately which are, when if Placenta is attached over if os t^uce & when the woman is in convulsions

I have never seen the place, the
 name is quite different from the
 one in the map. It has been found to

on, but that will be correct.
Dr. Quaker had a case of a lady
who a few hours after labor, began
shivering & shuddered & so great
an induration of the uterus, if
it further came some distance
externally. He p. of touching of
uterus was not much contracted
& enlarged it with ease (a)

Hernia Uteri - The uterus if
is said may get in among the
recti muscles & thus form a
hernia. Mr. J. never saw a
case of the kind.

The uterus may be ruptured by
J. ~~being~~ ^{falling} getting into it. Fall precipi-
tate, when well secured in bulk
or by instruments, or of labor
pains forcing J. child's head against
J. uterus &c. (a) This must rarely
have been more than fatal.

The ovaria seem to be a seat of
great pleasure for in a furious
uterinus, they're always
enlarged - at least in J. head. Mr.
L. has seen J. who had had this
complaint.

The Dropsy & Tympanites
of J. uterus have never been
seen by Mr. L. but are mentioned
by authors.

The Menses appear every month
& carry off about 4 ounces of blood
at each time.

1. ~~Figure~~: Description of the figure
 each general description, and
 the name - and the name of the
 person - as in the first table
 continued

to days generally - why there
be pain in J. back - sickness -
colic &c. - does not appear evident
Abortions M. C. thinks are the
most by too large a quantity of
food being taken during July
& thus a large quantity of blood
is added

For the menses to not M. C. thinks
making women healthy - for
in some cases we see girls
married, and at 14, before their
menses have made their
appearance - who have never
any menses afterward

In Obstructions of Menses Dr.
Hunter used Turkey - tea - columbo
&c. - M. C. has J. Electricity of J.
use in many cases

The Menses are July & every
irregular - when they do not
appear at the usual period, and
emetic should be given - if feet
but in warm water - a gentle
sudorific grain - Alactin pills
are July & of service by stimulating
secretion - Ligatures on J. Thighs
some are of service - The Rubra
Tinctum may be much recom-
mended - Dr. Hunter used to
observe of irregularity of the
menses in occasional cases

x "Menorrhagia (alba) arrosa, uterine
localis in non gravidis" — fuller

(a) He had a Pat. who had this
complaint to whom he gave
of. guaiac. sine. ʒ ʒ ss q. in 6 weeks
she took half an ounce a day — It
cured her perfectly — the nothing else had
succeeded

(b) Dr. Fordyce says, matico-matico
is the only effectual remedy —

want of Gen. Health and therefore
of each day attention to
restoration of Gen. Health more
than to Nervous — Dr. 4

thought of. There were no
med. w. force of catamenia
but M. L. mentions otherwise

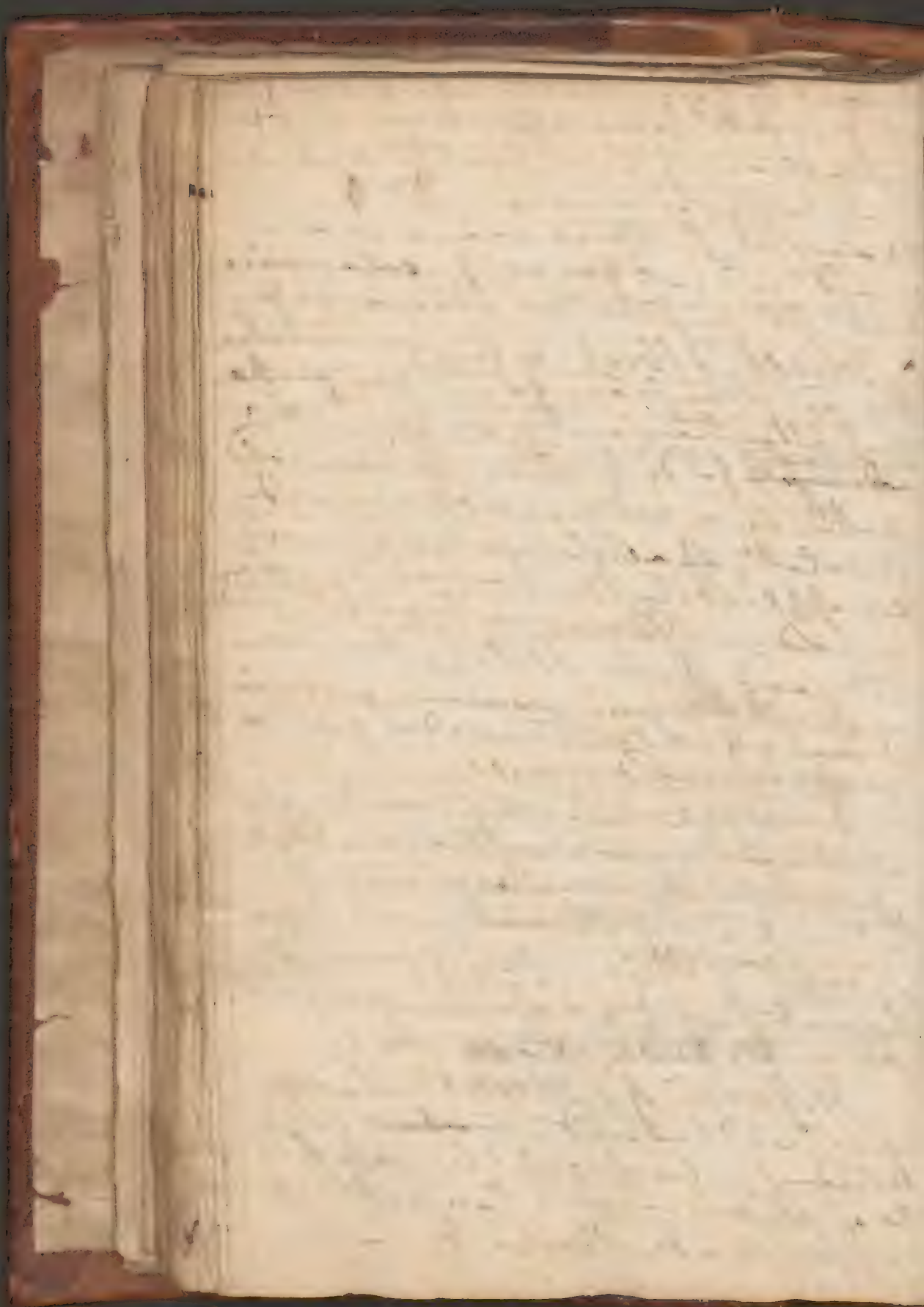
* Fluor Albus is frequent
by inattention for of gonorrhea
but attention only in Gen. is
sufficient to distinguish — The cold

bath is a very good remedy
as a substitute of white rectified maly
be applied to the part either warm
or cold — Mercury has been used

with good effect — M. L. has seen
excellent effect from gum guaiacum given in
of 4 or 5 gr. 3 times a day first — a
gradual increase — (2)

Hysteria — Suffering & crying
alternately — convulsions — The
Colic hysterica, or cure of
a Lump in Throat &c. are
symptoms of this — Many med.
have been used as zinc — valerian
&c — ~~Dr. 4~~ 4,

Inflam. of Uterus — Large
mass sh. bed in ~~water~~ by
relieving — he sh. sh. be applied
to of abdomen & a foment. of
Rhubarb — made, starchards



Scirrhus of *J. uteri* does not
admit of recent impregnation. Dr.
M. C. gives an instance in this
case abortion was proc'd.

Cancer of *J. uteri* — This is a most
deplorable complaint — Still, harsh
mercury &c. have been try'd witht. any
effect — M. C. recom^d. *Cantharides*
a palliative to alleviate a little of
suffering of such an existence —
This Vit. fery makes its way into
of *J. bladder & rectum* — The ulceration
generally begins in the vagina &
extends to *J. fundus uteri* by degrees.
if it does not destroy before it reaches
it.

Opification of *J. uteri* — or of the
arteries of *J. uteri*.

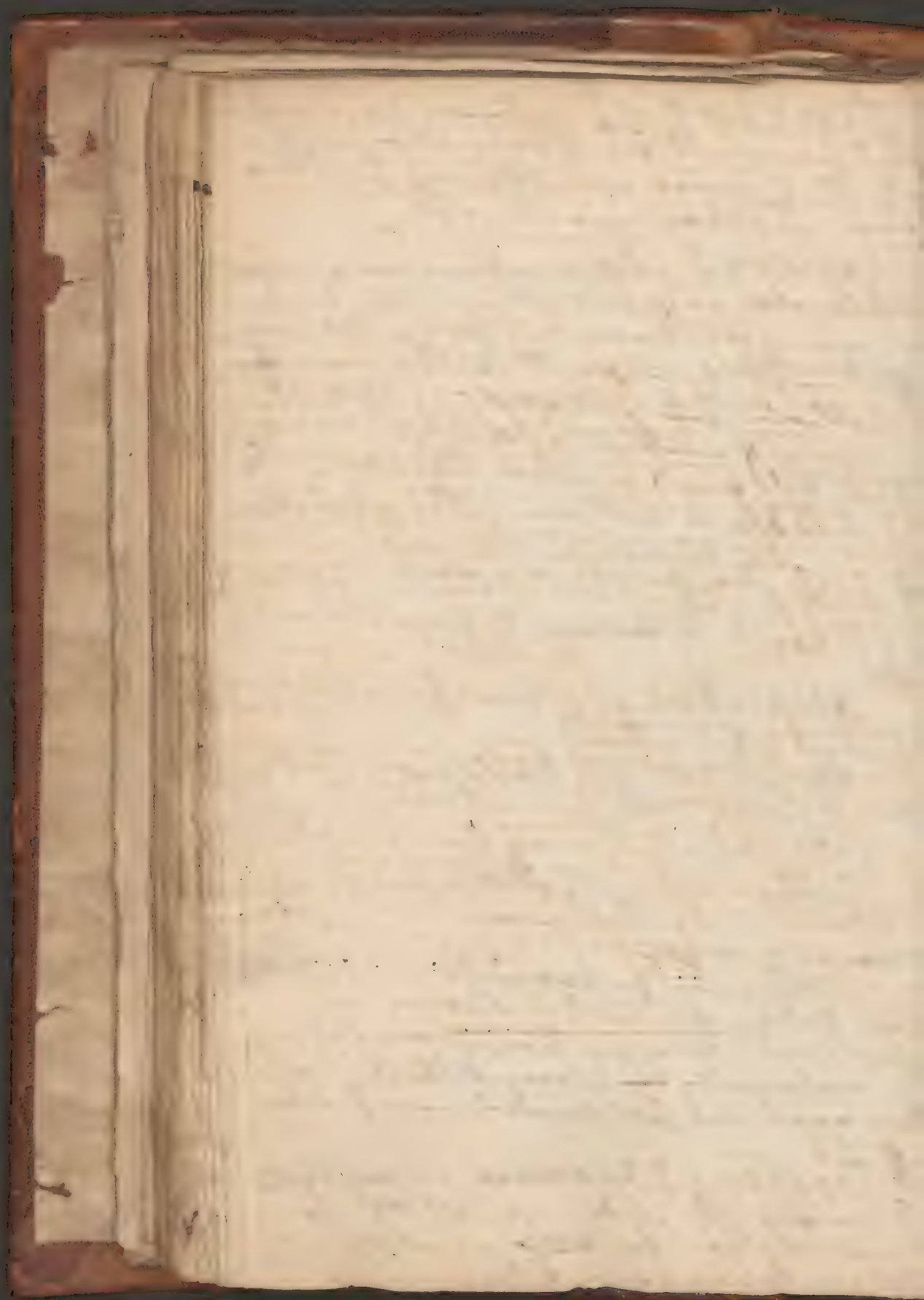
The Uterus of *J. Fallopian Tube*
by *J. fetus* may be occasioned.

Polypos also may be proc'd.

Suppurⁿ & Ulceration may take
place in the Fallopian tubes ~~these~~
~~cases are rare~~

Cells may be formed in *J. Fallop*
can tube — Dr. M. C. shows an
instance in a paper — or perhaps
be naturally formed there. &
present in palpation on *J. side*
affected.

Dropsy of *J. Ovarium* may distend
of ovaries of *J. abdomen*, so as to
be mistaken for ~~ov~~ ascites —
M. C. relates a case of this kind.



where he kept 30 times — the
disease proved fatal at last — It
has been proposed to keep a seton there,
of *J. ovarium* — but Mr. Hunter is of opinion
with good reason, consequences —

Specific of *J. ovarium* may happen
The Breast — Inflammation is to
be relieved by bleeding — volatile liniment
to the part &c — If it goes on to suppuration
it has been recommended to let it break
except it points — but Mr. Hunter
is of opinion if the pain is great — or
it points wrong — or if it distends
it is best to puncture so as to endanger
mortification.

Sicthness — About 1st appears
there are darting pains from the
apilla downwards in the evening.
When these pains come on rest ought
to be performed if the patient is
not too old — or there is no tumor in
the apilla — When of course is
attached to the bones, no operation can
succeed — Caustics in general
& all strongly used. Do harm

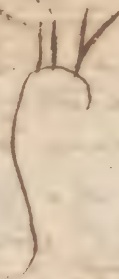
Not before it reaches the point of view

(6) the highest point of view is the
highest point of view of the object

Lecture 15. The arterial system of the heart.
Of the Arteries.

There are 2 arteries arising from the heart - the aorta & pulmonary artery. The pulmonary artery divides into 2 branches, one of which goes to the right ventricle & the other to the left ventricle of the lungs - carrying thus the substance & returning by veins to the right auricle. The aorta sends blood to all the other parts of the body - As soon as it has passed a little above the left ventricle, it sends out 2 branches to supply the heart itself - called coronary arteries - of the right coronary artery is smaller than the left - these divide into branches - after they have joined with the left coronary artery - The left coronary artery arises from the aorta between the origin of the pulmonary artery & divides into 2 branches - one of which goes to the apex of the heart and the other divides into 2 branches to the sides of the heart - As soon as these vessels are given off by the aorta it passes obliquely upwards and inclining rather to the left side & forming an arch - from the upper part & right side of this arch

Left side of y. corda



(as opposite of lower of the
thyroid gland)

It sends off a number w. soon divides
into 4. of right subclavian & right
carotid is a little more towards
4. left of left carotid - a little further
another trunk - w. is 4. left subclavian

But there's 4. nascent ~~green~~ now
& then, for some 4. right subclavian
goes & carotid is off separately from
the aorta - some 4. of left carotid &
subclavian by one common trunk

The right carotid lies deeply under
4. sternum - It runs
w. some distance along 4.

~~trunk of common trunk~~
side of 4. trachea till it gets a little
above 4. thyroid gland & sends
off 2 branches w. one of ~~right~~
~~carotid~~ internal & external carotids
The 2nd branch goes off by the
internal carotid ~~is~~ is 4. thyroid
superior - w. supplies the thyroid
gland

2nd The next branch is 4. lingualis -
~~superior~~ w. arises abt. a quarter of
an inch from 4. origin of 4. external
carotid at its anterior part - It runs
very near 4. horn of 4. as it goes
It then ascends 4. side of the
geniohyoglossus, & goes to 4. tip of
4. tongue & towards its root joins in
w. the internal maxillary

3rd The next branch is 4. internal maxillary
artery - w. rises a little above the
origin of 4. lingualis ascending and
artery - It passes beyond 4. angle
of 4. lower jaw & sends off branches

in case of hemorrhage from the lip either
from wounds or from the operation
for the hare-lip, it may be checked by
pressing on the submaxillary at this part -
(see fig. 10) small branches to
the inferior labial muscles &
the trapezoid

(d) The lips - These join upon
the upper part of the lip the greater
branches going up to the inner
angle of the eye, & side of the nose
where they join with the internal
carotid

(e) The submaxillary runs in a long canal
- the lower edge of the lower jaw - and
perforates it about near the centre, running
up the chin externally - The hyo-submaxillary duct
of the jaw about the lower part of the hyoid
also the duct &c. of the upper jaw - I. Bell
describes them as two branches instead of
one under the names, infra-orbitary, &
submaxillary

The submaxillary gland & continues over of anterior edge of masseter muscle & divides into 2 branches called the coronoid & 6)

4. The occipital artery arises from of internal carotid artery of maximum group & transverse process of 4th atlas - It runs a little horizontally then runs upwards & divides into 2 branches - one of which joins the temporal & of other with of occipital of of the side

5. The internal maxillary artery supplies the dura mater & a branch is sent down to the antrum of Highmore & another to the roof of the mouth. The artery gives common to of temporal - it sends some branches to the ear - The chief branches from of external maxillary are - The Pharyngeal, the Submaxillary - & Infra-orbitalis -

The external carotid artery continues upwards & backwards - root of of parotid gland between of zygomatic process & root of the ear & as soon as it has given of of external maxillary is called of temporal giving - It is soon after divided into 2 branches one of which goes over the spine of root of of scapula - is called the

21. 2 all of contents almost of 17. of
cranium - after of substituted
outlet has supplied of ear - just
before it joins of circle, it is called
the hairy nerve

anterior branch of the
~~more backward~~ is
called its posterior branch

The pharynx arises from an angle
made by the internal carotid
artery & running forward
gives to pharynx muscle to supply
it with blood

The internal carotid artery is
much larger than the external
It passes up & is soon out of sight of
passing before the transverse process
of the atlas, & enters into the foramen
transversarium & from
thence goes along the foramen
transversarium & the
arteries into 2 branches and
running between the lobes of
the brain, & being reflected on the
fals of the brain matter - the other
between the middle lobes of the brain
it sends a branch to the eye -

There is a circle made by several
arteries surrounding the sella turcica
called the circle anterior of Willis
consists of the vertebral artery - the
internal carotid - The vertebral
artery arises from the subclavian
& passes thro' the foramina of the
upper cervical vertebrae & goes
to form the circle anterior. These
arteries supply the internal carotid

is as soon as it leaves the skull & passes
under the anterior scalenus muscle is
called axillare. and when it has put
off its tendon of the Pectoralis Major it is
called Brachial Artery. —

~~first the last branch of the~~

at the insertion of the ribs till below of 7th & 8th
ribs it enters the intercostal space & gets to
of outside of 7th chest. It supplies the intercostal
Muscle. and innervates the 7th & 8th intercostal arteries
and at the lower border of 9th chest it gives off the

181. ARTICLES cont. — Upper & Premolars

the subaquean as soon as it
exceeds the apilla is called sub
aqueous.

The *Aphyosaurus* has a subclavian artery arising from the 4th vertebral artery - goes behind the cardiac, supplies the thyroid gland & trachea.

I have -
The inferior conoid is a branch
of the thyroid inferior - I have one
of scapular muscle - a great muscle
in the neck - It is united to the
H. of J. shoulder -

The posterior cervical lies deeply seated between 2. angle of 2. vertebral artery & 2. transverse process. It is a deep notch or furrow either a notch or a foramen in 2. transverse process of 2. lowest cervical vertebra passing over the multifida spina supplying 2. deep & more superficial muscles joining in with 2. vertebral artery & a constant branch of 2. posterior cervical.

The ~~mammaria~~ mammae interna gives off - Queen fork
of subclavian artery - gives some
small branches to ^{the lungs} & trachea
& pericardium & a branch to the
intercostals ~~for~~ The mammae
interna is continued over ~~on~~ ~~the~~
~~upper part of the sternum~~
~~in superficial plexus~~ There
is another branch called intercostal
superior

Fr. 91. Gantzor -

(The supra-auricular; passes over the acromion
and into the supra-vascular notch, it is the usual
part of the capsule
to) This cuppa -

The subclavian artery ^{is uniform}
in its branches, all of
angularis ^{is} supplies the rhomboid,
&c.

As soon as the subclavian
has given off these branches it
passes under the collar & is called
axillary — It is to be found below
a bundle of nerves & the vein
& passes under the axillary plexus
of nerves.

The superior scapular artery
is of the origin of the subclavian
has just the ^{same} ~~same~~ ^{origin} ~~origin~~ ^{as} the
inferior scapular artery & subclavian

The thoracic superiores are of small
size, but of the origin of the subclavian
They supply the perforators major &
minor & intercostal spaces &c.
The thoracic superiores arise from
the trunk of the subscapular artery.

The subscapular arteries ^{are} ~~are~~ ^{the}
thoracic ^{supr.} & ^{inf.} & over the
of the subscapularis ~~is~~ supply of the
major & minor &c.

The humeral, or circumflex
humeral arteries form part of the
artery next of the brachial ^{artery}
under the posterior edge of the deltoid
muscle & supplies the scapular ligament
of the joint. The axillary artery now
takes the name of brachial artery.

The brachial artery lies further

(a) The brachial artery does not divide
into radial & ulnar till it is a little
below the bend of the elbow -

of - bone at its upper part
than a little lower

The brachial artery sends off
several small branches at
each side as it goes down the
~~for~~ upper part of J. fore arm
These branches anastomose
and are call'd anastomosing
branches into anastomosing
arteries. The anastomosing
trunk in J. direction of the radial
nerve below ^{of the} J. brachial
arteries & brachial nerves.

The brachial artery then divides
into J. brachial & J. brachial
call'd J. anastomosing J. brachial
arteries of radius & ulna
dividing into J. ulnar & radial
arteries.

The radial artery lies below J.
extensor & flexor muscles
superficially on the radial
bone to the wrist. It gives off
only a few small branches on
each side till it comes to J. lower
part of the radius - then divides into
2 consid. branches. The internal
one going to J. deep vessels of
J. external J. runs under
J. tendons of J. extensors of J. thumb.

The arcus profundus is formed chief
of J. radial artery & a few small
branches of J. ulnar. The arcus
in the ulnar & very little by the radial.

* The 1st is the arteria bronchialis to
the lungs; a small artery

(a) Someth. They arise separately from
each other - someth. fuse & calice

1. *flexor sublimis* & *flexor profundus*
is running a little lower up
seen of sample made by the
flexor sublimis - & *flexor carpi*
radialis -

The *interossea anterior* is of
1st branch it sends off - w. paper
down behind of upper edge of
2^d branch of *quadratus* & *perforatus*
of *interossea ligament* -

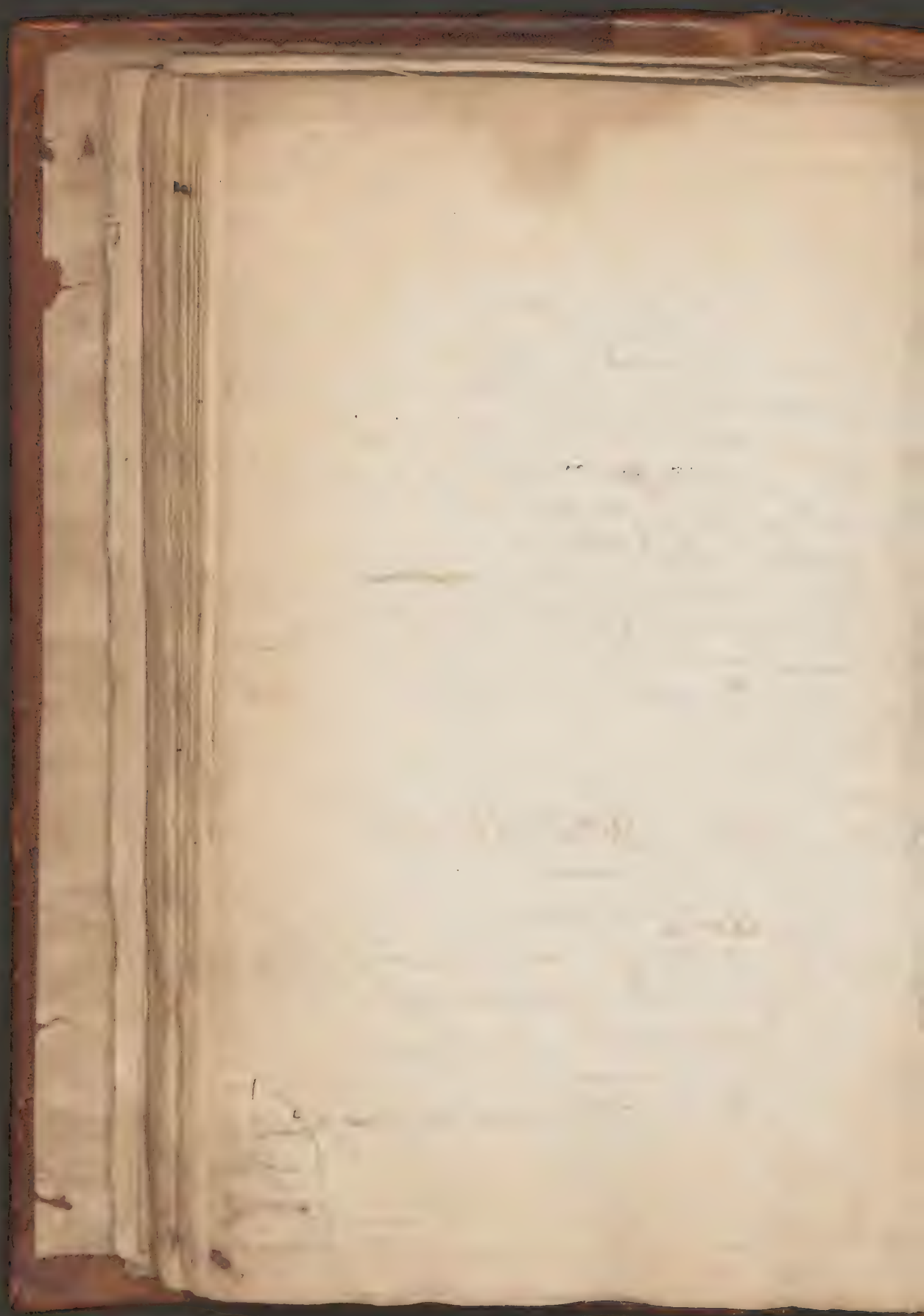
The *interossea posterior* (or interior)
is common extension of
1st finger & *perforatus* of 1st branch
The *interossea* artery runs
paper on of external part of
3^d finger - & forms the
greater part of the superficial arch or *arcus*
sublimis -

Figure 62? - Arteries contd.

The Aorta passes down by the
left side of the spine, diminishing
a little in its passage - It sends off
1st The *Intercostals*, which supply 4.
intercostal spaces.

2^d The *Thoracic* - ~~the~~ *Thoracic*
it supplies 4. *Diaphragm* & 1st of
4. *trigones*.

3^d The *Celiac* - it is not more
than 1/4 of an inch in diameter.



...all the arteries of the ...
...after it has ... the ...
...the 11th ... of the ... and
...after ... into the ... of the
... - the ... - the ...

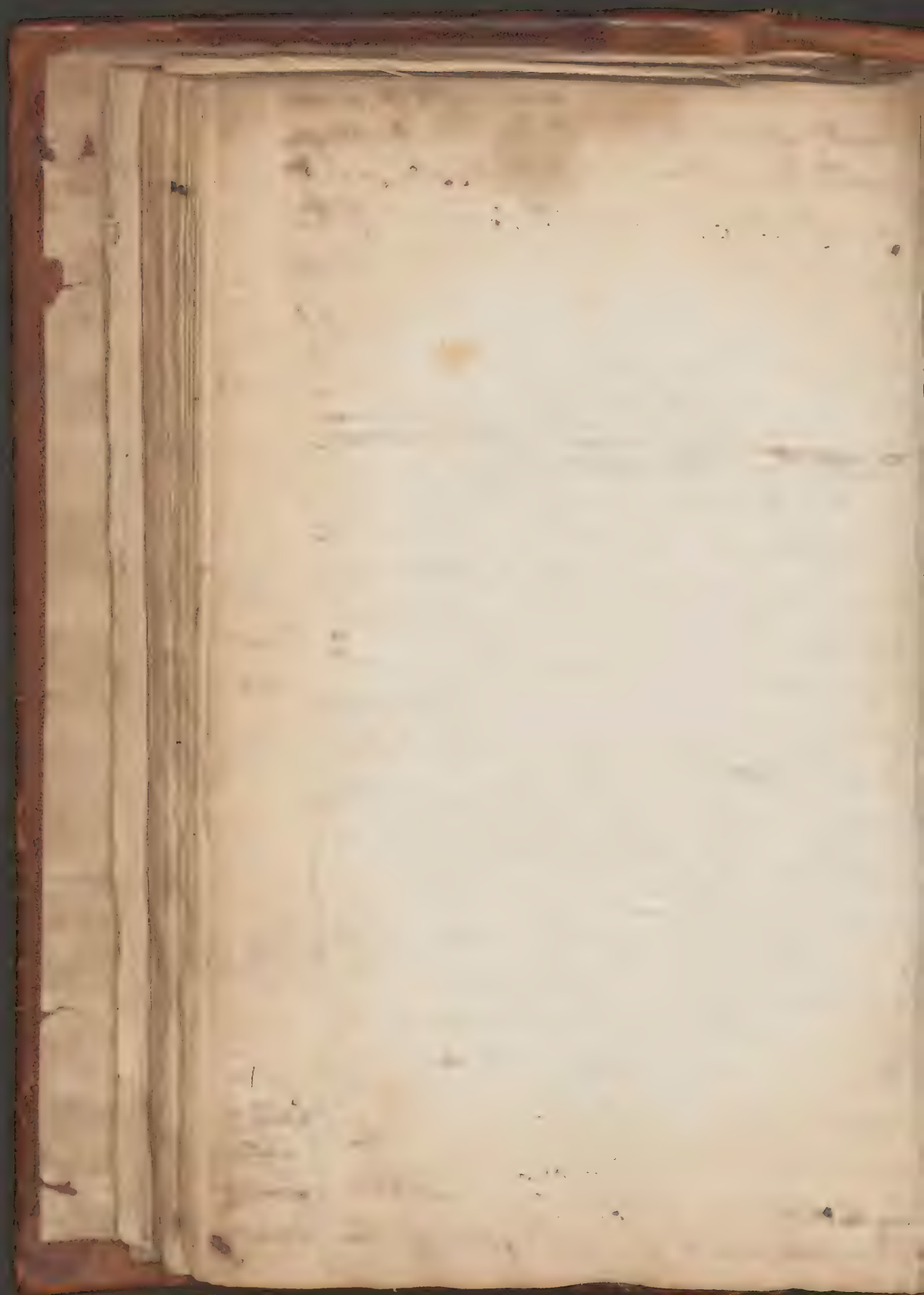
1. *Arteria Coeliac* or *Gastrica Sup.*
first supplies the ... of the ...
... a branch called *Super. Coeliac*, ...
... the ...
~~... the ...~~

2. *Arteria Hepatica* - gives off the *Arteria*
Gastrica, which divides into the *Gastro*
Splenic - and *Pancreatica* - *Coeliac*'s.

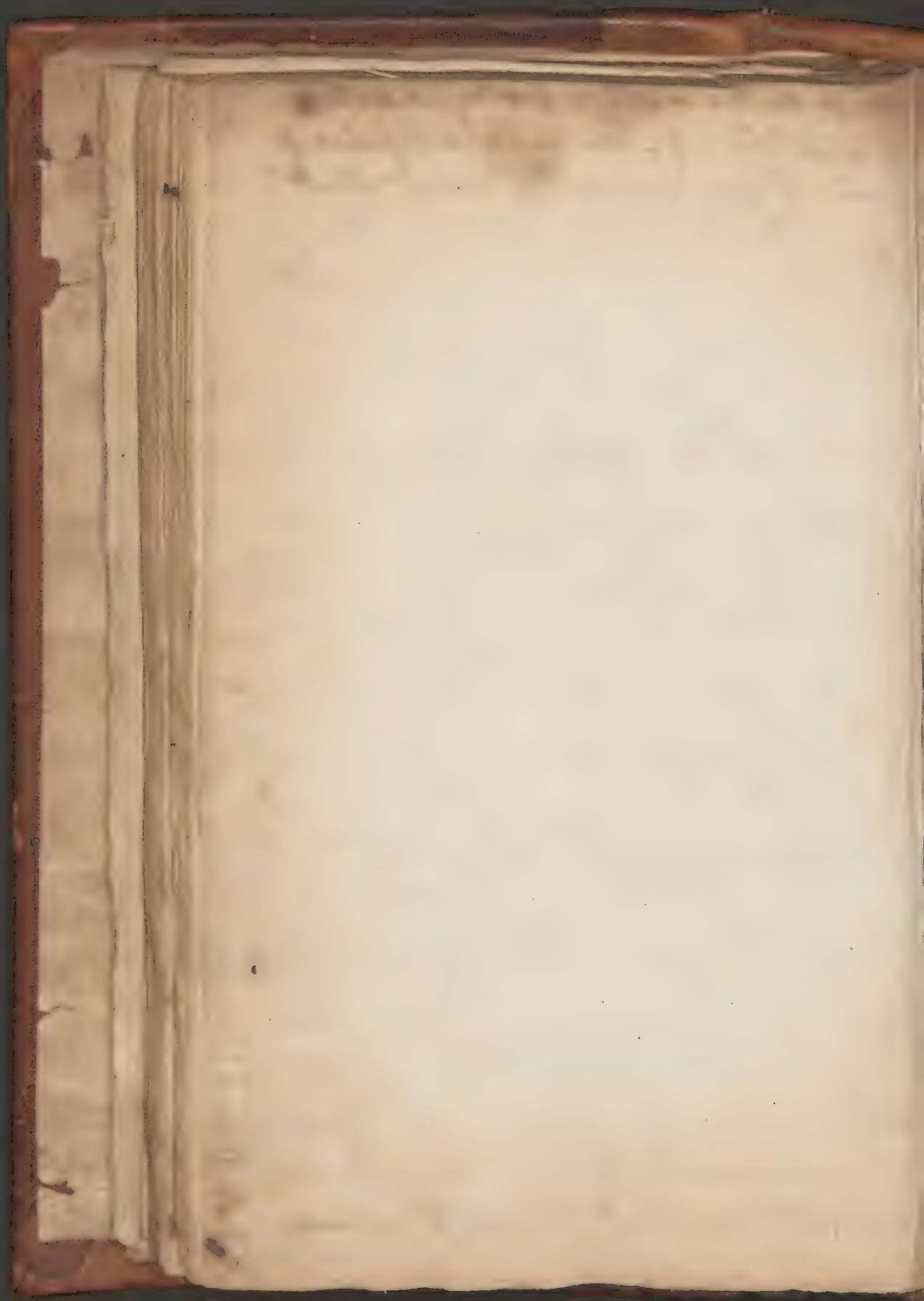
The *Hepatica* also gives off the *Cystica*
Sup. - *Hepatica* or *Coeliac Minor* - and
afterwards divides into the left & right
Hepatic for the supply of the two lobes
of the liver, the right first gives off the
Cystica to the gall bladder before it
enters the liver -

3. *Splenic* - is the largest branch of
the *Coeliac* - it gives off the *Pancreatica*
Minor - and *Pancreatica* *Major* & *Gastrica*
Posterior - & *Gastro* - *Splenic* - *Arteria*
... - and then enters the
substance of the spleen by 3 or 10 branches.

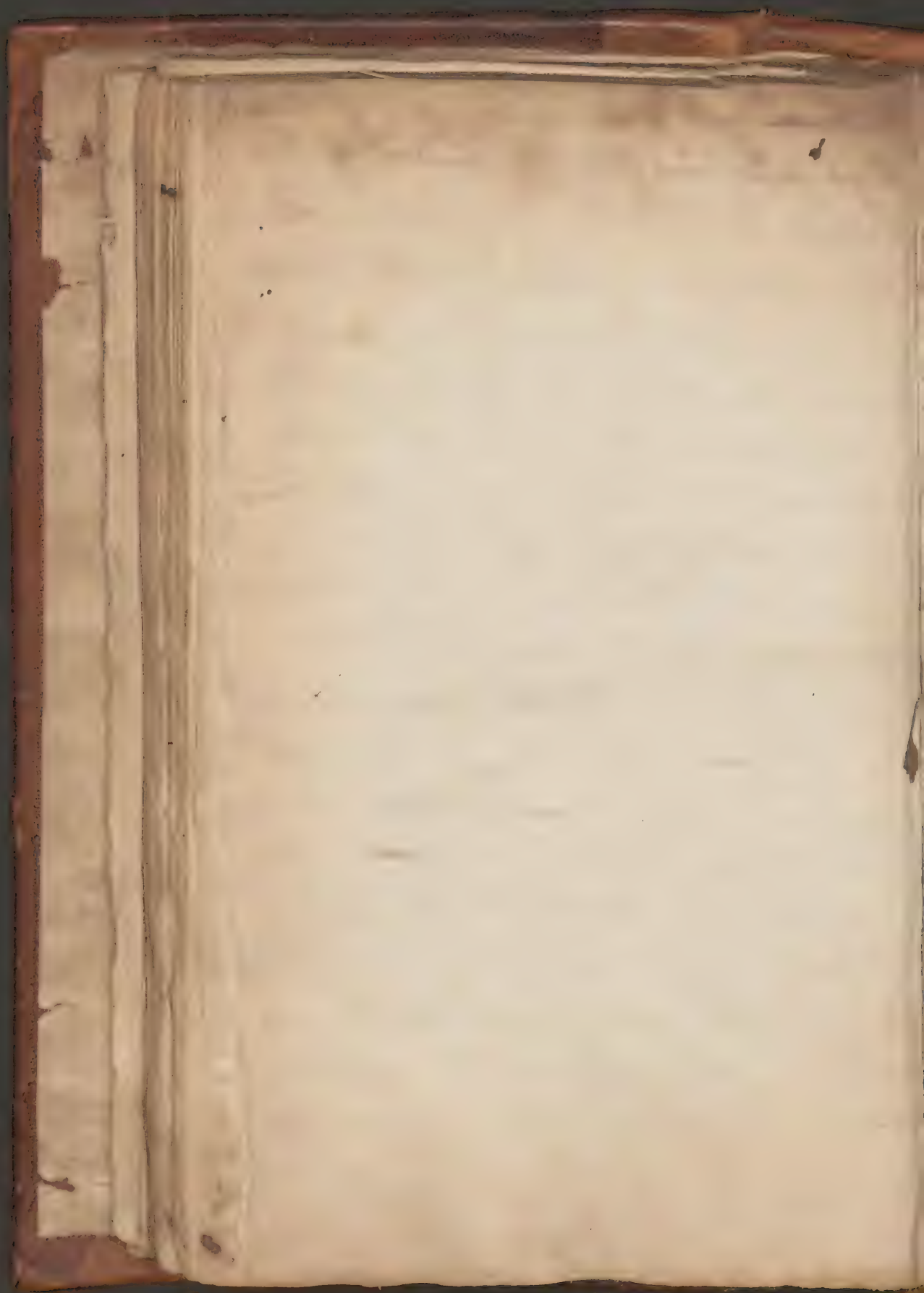
The *Arteria* ... gives off three
Mesenterica Sup. - & gives off the

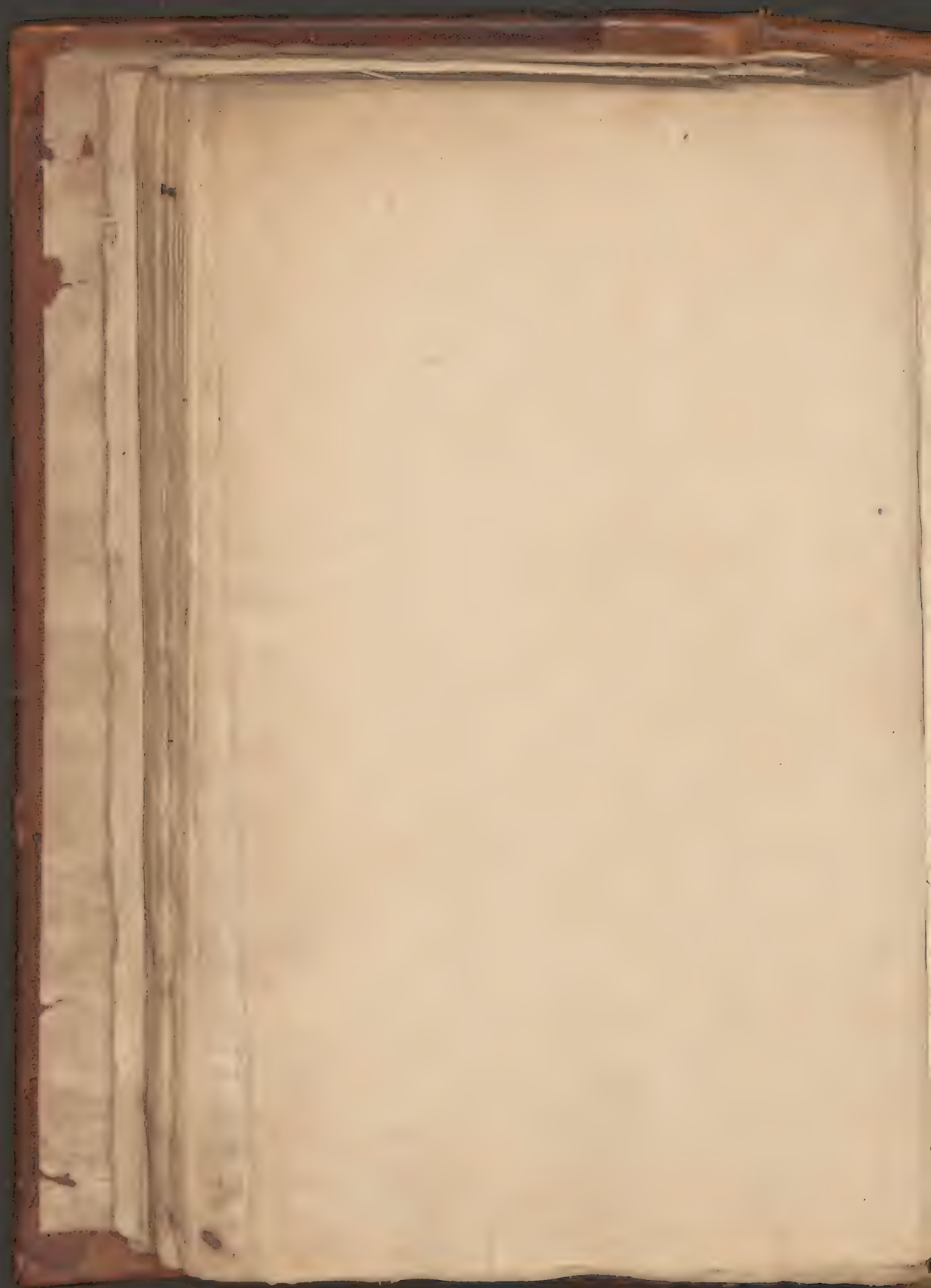


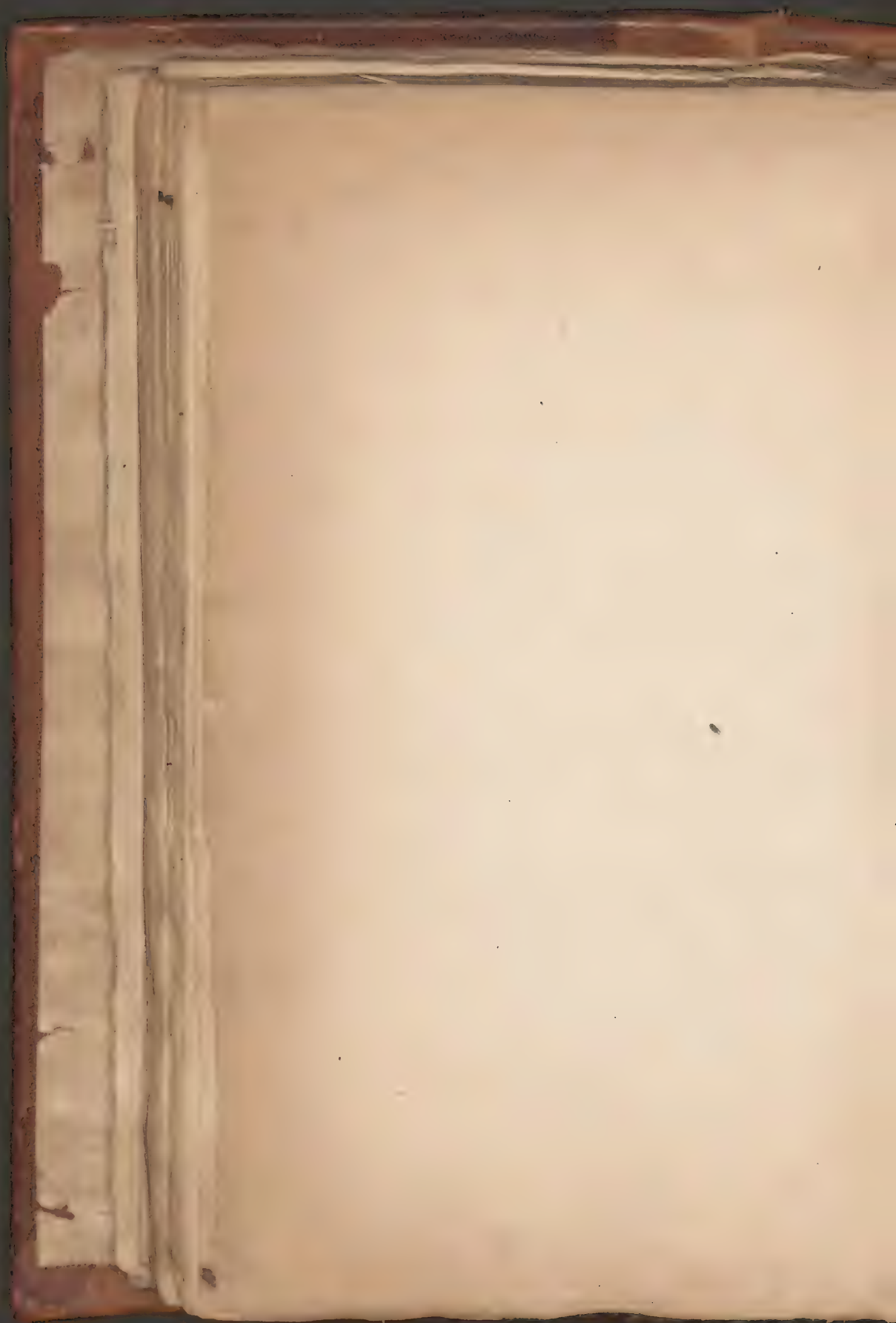
[illegible]



and, gets to the under part of
the ^{upper} & passing over the tendon of the
Biceps becomes the Splenic - The
Splenic gives off the Anterior Tolia
a. passes over the intercostal. and
runs down the ^{side} near the edge of the
pleura between the Tolia's Anterior &
Thoracic Tolia's Lungs - 2^d The Posterior
Tolia a. after giving off the Coronary,
runs on the ^{posterior} side of the Tolia
& passes under the Mallot. A. then it
goes to the back, and getting to the under side
of it forms the Panter back in
connection with ~~of the~~ ^{the} ~~the~~ ^{the}
Lungs & of y^e. Tolia's Anterior - The
Coronary runs down the edge of the
Tibia & when it arrives near the
under side it divides into 2 small branches,
called Coronary & A. Tolia's which
run on each side of y^e. Tibia -







Lectures
on
Anatomy.

By W. Cruikshank,
Jr
Gr Baillic.

N^o 6

The reason is chiefly supplied
and supplied the same matter
It is best to purchase a new
house and to build the new
of land and water

It is an chiefly of the same
of the same kind of land

proceeding to the

proceeding to the

proceeding to the

Part 1.st - Of the Brain.

Dura Mater — This membrane is tied to the skull by a net of small blood vessels — as well as by the fibres of the dura mater. The dura mater adheres to all of the internal surface of the skull, & has a few projections of ~~it~~ ^{it}, on its outer surface. Sometimes there are small solitary glands, called glands of the dura mater, situated about the sides of the superior longitudinal sinus where there is a small ~~interruption~~ ^{interruption} of the dura mater. — The outside of this membrane is more spangly & coarser than the inside of it — on the inside, it is glistening & its fibres are easily to be seen.

[illegible]

The Superior Longitudinal Sinus is situated on the middle of the inner margin just above the foramen transversarium in the middle part of the cranium in the direction of the longitudinal suture. It extends from the little foramen just above the occipital foramen backwards to the lateral sinuses. It grows larger as it passes backwards.

a. These Cochiculae are situated in the
distance, as are in the 1, or 2, or
3.

[illegible]

(2) The ling. mater also
forms the transverse - as
the transverse sinus running
along the petrous part of the temporal
bone forming the lateral
sinus.

The occipital sinuses are called
the foramen occipitale.

The facial sinuses lie on
the sides of the face running
along the upper part of the
face of the petrous part of the
temporal bone.

The ling. mater is often found in the
of the ling. mater has been in the
of the ling. mater as the ling. mater
a part of the ling. mater part of the
a) The ling. mater is an important
vascular membrane.

The ling. mater is a vascular membrane
which is found in the ling. mater
of the ling. mater as the ling. mater
a part of the ling. mater part of the
a) The ling. mater is an important
vascular membrane.

common. with the lobes of
Giacophiles — (2)

Tunica Arachnoidea is a mem-
branous layer, lying between the
of dura mater, & spread over the
outer surface of pia mater. It
is closely applied to pia mater
but does not enter into the
of pia mater. In some
parts it may be sup-^d by air blown
in between it & pia mater. This
membr. carries no red vessels (c)

Pia Mater consists of one lamina
it is closely applied to the brain w.
send out processes to the
convolutions of the brain, called
Arachnoidea — It has an outer
lamina w. is very fine — The
cannot be seen chiefly to be formed
of cellular membr. (a)

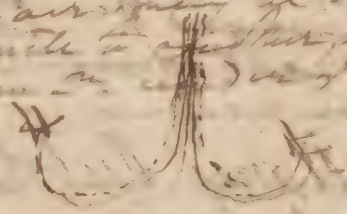
Brain — The substance of the brain
is of an oval shape — convex on its
upper surface but irregularly — at the
anterior part there is a division w.
forms of anterior lobes of brain
There is also a division behind w.
forms of posterior lobes of brain
In the middle there is
a narrow band of brain
part w. is divided into
of cerebellum — There is a
divis. — This is of cerebellum
The ~~lobes of cerebellum~~
~~lobes of cerebellum~~

(a) is just over the meeting of the
3 cartilages, ~~called~~
whisk

b) They extend from the ~~top~~ of
of cerebrum backwards — They
are narrow at their anterior part —
but grow broader as they go more
posterior, forming a slight curve.



(c) but arranged by ~~the~~ ^{the} ~~one~~
into a ~~series~~ ^{series} as ~~intended~~ ^{intended} a
series of ~~whisks~~ ^{whisks}



(The ~~Sub~~ is the anterior part of J.
J. ~~is~~ ^{is} called f. — the ~~sub~~ ^{sub} ~~sub~~
Commisura Anterior is a little
oval ~~transverse~~ ^{transverse} process at J. anterior part
of J. ~~frontis~~ ^{frontis} ~~is~~ ^{is} ~~is~~
Commisura Posterior, one at its
posterior part —

middle lobe of the arch at Cornu, is called *Conium Ovale*.

Lecture 2? Brain continued. Lateral Ventricles.

After taking off a much of the medullary substance to make a plane even with the corpus callosum in some cases down to the lateral ventricles. They are ~~extensive~~ ^{divided} by the septum lucidum ~~and~~ of which is fastened to the ~~foramen~~ ^{foramen} of the corpus callosum and its texture is too close to suffer air or fluid to pass through it. These ventricles contain a small quantity of water seldom more than 3 or 4 drops when dried.

Fornix - In the middle of the ventricle there is a white body called *fornix* at its posterior part it splits off two crura to the lateral ventricles (all)

Plexus choroideus - There are 2 red bodies situated on the sides of the crura of the fornix. At their posterior ends there are small ~~white~~ ^{white} bodies glandular & fringed by cilia in the ventricle.

The *Linea semicircularis* is a white line running on the upper side of the *Thalamus nervorum optico-cerebralis* - This has said to be found existing in very few subjects.

11.

The first night in the room
 following the trial.

Wm. J. Partridge

Under the form of there are 2 means
call'd J. 2 great veins of Galen. They
commence in the the Notulae of
Vierphilus, 1st

Corpora striata are 2 bodies
situated ~~one on each side~~ of J. lateral
ventricles. ~~They are~~ ^{their} position part
enlarge at ~~the anterior~~ ^{the} part ~~they grow~~
smaller at the posterior ~~part~~
The corpus striatum is so call'd
from having lines of cortical sub-
stance ~~two~~ ⁱⁿ ~~the~~ ^{the} middle of one.

Thalami Nervorum Opticorum
are 2 white bodies situated on the
internal sides of J. corpora striata
They respect each other when they
form the Circle of Dives. & of J. optic
They consist partly of medulla partly
cortex ~~and~~ ^{chiefly} of J. cortex

Third Ventricle is a small space
pretty low down between J. lower part
of thal. nerv. optic. & of pineal gland
~~it is lower down than J. latter~~

Pituitary is a small ~~piece~~
of medullary substance at the end of each
ventricle ~~called~~ ^{from its} resemblance
to what its name implies

The Spine is a small ~~piece~~
seated below J. peduncles of J. hind
brain ~~into J. 4th ventricle~~ ^{into J. 4th ventricle} of cerebellum

Pineal Gland is ~~between~~ ^{between} J. posterior
ends of J. thal. nerv. ~~of J. 3rd~~ ^{of J. 3rd} ventricle
This G. has been
call'd corpus conarium from its
conical figure. The peduncles of
J. pineal gland are only an arch
of medullary substance attached to its sides.
It is reflected on the sides of the

The latter may also be called membr. inter. & intra.

(a) canal, reaching from 3rd to 4th me. tube,
and is covered by what is made
up of cellular membrane, call'd -

(b) The 3rd process of J. Nura mater
is small - lobes of J. lobes of J. lobes
of J. lobes of J. lobes of J. lobes
This process is perhaps not more
than half an inch in breadth -
for the cerebellum is not of the
int. of lobes by J. lobes of J. lobes
of J. lobes of J. lobes of J. lobes

~~of J. lobes of J. lobes of J. lobes~~

the color of the spinal cord is darker
or more tawny. — The spinal cord contains
a little gray matter.

Spina Dura is the outermost
intestine under the spinal gland.

These 4 bodies are divided into
States & Parts of the spinal cord.

For a testis and Quartum Ven-
triculum is of the part of the medulla
oblongata ~~and~~ reaching from the 1st
ventricle to the 4th. It forms a small (4)

Valvula Major is situated
between the 1st and 2nd ventricles
the part of the cerebellum to which it is
attached.

Tentorium is a process of the
dura mater, covering the cerebellum
& extending from the back part of the
brain to the front of the skull.
Which is a thick part of the skull is
bounded by a canal, called the
lateral sinuses. — They commence
in the back of the skull & pass to the
front of the lateral ventricles.

Foramen of the skull is a small
opening towards the superior part
of the tentorium. It joins the lateral
sinuses.

Cerebellum is divided into 2
parts, called the lobes of the cerebellum.
On its outer surface it consists
of cortical surface, disposed in
concentric curves diff. to what it
is in of cerebrum. For there
it is in convolution.

1st The 1st & 2nd Intundibulum is a small
hole under f. beginning of f. parais —
The Intundibulum is a
red pyramidal body situated under
f. the junction of f. after myous.
It is a f. of pituitary gland — It
has been doubted whether f. in fundus
has any cavity or not — but it
certainly has — Dr. B. shows a
high f. in fundus — It is a f. of
this kind to determine whether
there is or not —

The Pituitary gland is situated
on the hollow of sella turcica and
is a moderate-sized gland composed
of a cortical & red subst. former
than f. of body of f. brain is
normal — From it runs the
Intundibulum

The Intundibulum is a bulb formed
by f. medullary fibres running across
f. upper part of f. mid. oblong. f. of latter
being a continuation of it

There are 2 pyramidal bodies sit. on
f. medulla oblong. just below f. pons varolii
made of med. subst. & a small amount of red

The Corpora Nigra are small
bodies, one on each side of f. corpora
pyram. comp. also of med. subst.

It is not till it f. the medullary
substance is spread in a small
horizontal form in f.
cerebellum

Processes Vermiformes divided into anterior & posterior and situated a little below & before of testes & testes.

Fourth Ventricle from its shape called *clavatus* or *scapularis* - It is a large ~~structure~~ *space* between the anterior & posterior *uniform* *protrudes* *extending* in a canal which leads to the *medulla spinalis* - (a)

Part 3^d of the Nerves

- 1st Pair of Olfactory Nerves arise from the corpora striata below of anterior & middle lobes of *brain* & divide into small filaments which pass through holes in of *cribriform* *bone*.
- 2nd or Optic - arise from *optic* *chiasm* of that nerv. Opt. at some distance from each other but join together at of *cella pyramidalis* and each divides again & pass thro' of *foramen* *opticum* in of *sphenoid bone* & comp. of *ocul.* *nerv.* *superior* & *inferior* on of *globe* on of *internal* part of of *optic* *nerv.* as in an *artery* *passing* up *up* *of* *eye* *to* *the* *brain* *by* *the* *branch* *of* *of* *artery*.
- 3rd or Motor of Ocul. arise from of *crura* of *cerebrum*, where *of* *they* *are* *going* *to* *join* *of* *tuberculum* *seminale* - They pass on of *outside* of *foramen* *oculorum* *superius* & *inferius* & pass out at the *foramen* *oculorum* *superius* -
- 4th or Trochlear - The trochlear arises from of *lower* part of *testis* goes down of *edge* of *tentorium* & out at the *foramen* *lacrimum* *superius*.

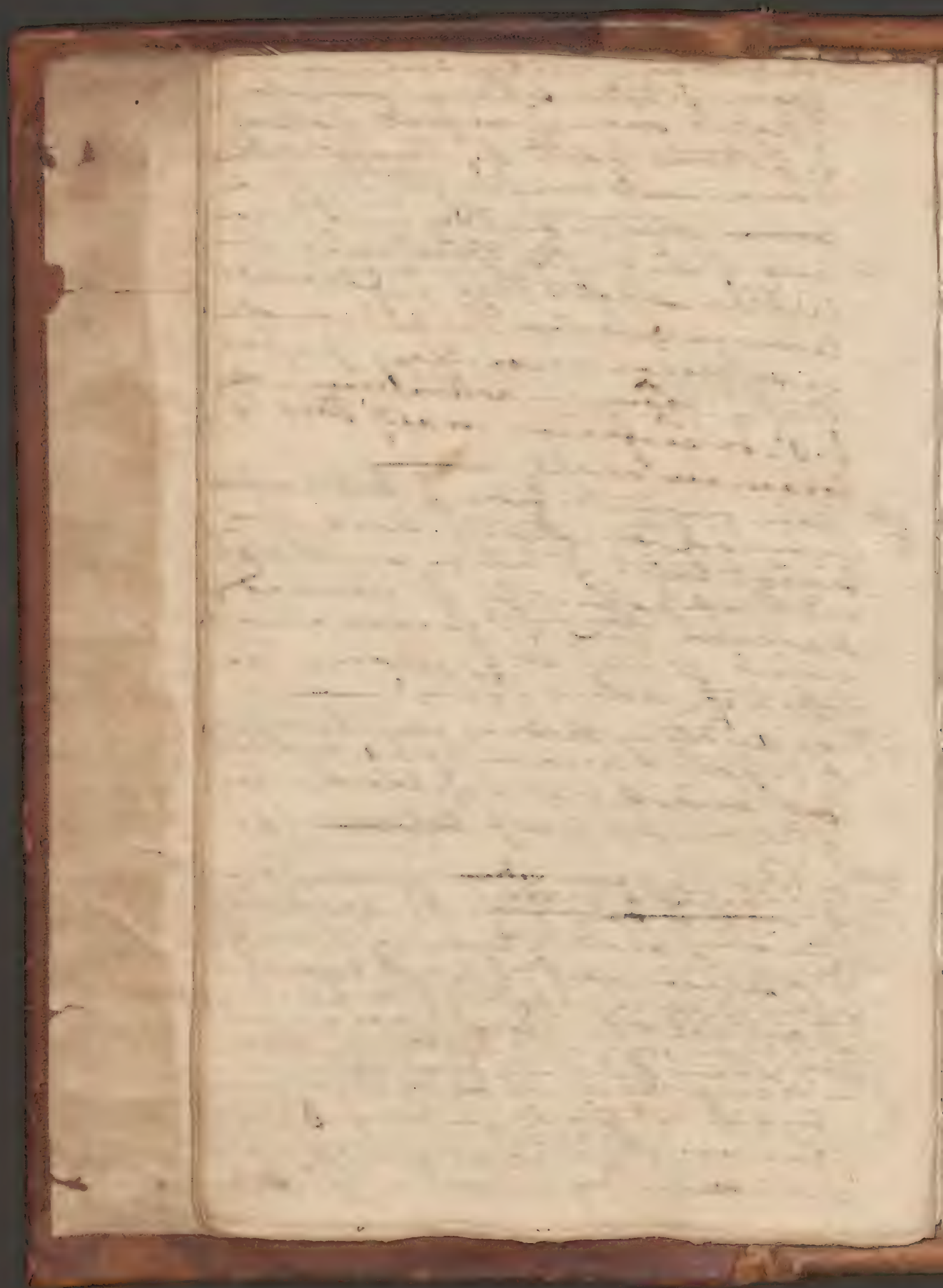
7

2. Several fibres in collected & form

[Faint, illegible handwriting]

6¹ & each leaf accompn^d with a pretty large
artery, enters of *musculus auditorius*
internus & immediately divides into 2
branches - one is extended an *f. inner*
campana of *f. ear*, and called for its becoming
soft, *Portio Mollis* - The other grasps
the *f. foramen externum* of *Galen* for *f.*
aqueductus of *Salpini* & goes on to *f. shell*
between *f. stylus* & *anterior process*
is shaped like *f. face-organum* &c. It is
called *Portio Dura* for its having *f. common*
firm coat of *across*
(6²) from them, supplying *f. mastoideus* -
superius should *aid* *muscles* - The
Car Cavern supplies *f. Pharynx* &c.

[illegible]



~~in q. os acceptis~~ supply *q. longue* etc.

Medulla oblongata is a
continuation of *q. tuberculum* anterior

faciens, armans, oculosque movent, palans, u
gustans, abducens, audiens, vagans, loquens,

14. The eye-lashes, or cilia are hairs placed
in the form of a double palisade on the edge
of the cornea being only 2 or 3 rows of hairs.
Their intention seems to be to break the rays
of light & preserve the eyes from foreign bodies.

Dist. of fly 200 or 300 can be used in one

11 The eye-lashes are quite prominent,
and they grow under the skin, &
cover the hair — They are call'd
supercilia.

1st ~~specimen~~ ^{specimen} from the Ch. of St. Mary
only, ~~specimen~~ ^{specimen} from the Ch. of St. Mary
gold found in it when it was ~~found~~
specimen of Ch. of St. Mary specimen in Italy
the specimen specimen

2. The forrugator Imperili^a is attached to *J. internat angula* - process of *J.* as frontis - a more fleshy part of *J. occipito-frontalis*. It pulls one eye - back lower in the other - as when back in *J. occipito-frontalis* wrinkles *J.* skin below [The eye-brawis

~~manuscript of the first part of the~~

~~Washed by water~~ forming
the white of the eye & being sent
over of course to the
South M. C. Demarest.

Sheet 7 of the 1st yr.

[illegible]

The day passed in a very quiet manner
 and we were not out with the gun
 — They were very busy
 and I did not go to the
 building.

[Faint handwritten notes, possibly bleed-through from the reverse side.]

The 2^d of the eye-lids, is q. orbicularis palpebrarum which surrounds the eye & is attached to the superior & inferior part of the inner angle of orbit. It shrinks & enlarges many & eye-lids close together.

Justicia longinqua L.
 Justicia longinqua L.

210
(1) *Musculus, vel Musculus, Mucens*
This muscle w^h is affected chiefly
in squinting.

(2) It is this muscle S. Albucius calls
Depression - When we operate for I.
G. Lachrym. we cut into the about 1/2 of the
length of the tendon of this muscle at the I. of the
I. of the Nervous of cutting too far going externally -
(3) or *Musculus Abducens*.

(4) When any external body gets into
I. globe of I. eye, M^r Lachrym. to a draw
a spike arm'd with gold and force to
angle - or to move I. tendon of I. body in need - & extract it.

2. *Rectus Internus* arises from
inner side of *J. tertium* & of which
a running along of *J. inferius* of *J. N.*
the nerve is inserted into the
anterior part of *J. sclerotica* by a broad
flat tendon. It is a stronger &
bigger muscle than *J. rectus sup.*

3. *Rectus Inferior* - *Propos.* -
arises from *J. tertium* -
of which *J. inferius* along of *J. inferius*
side of *J. optica* nerve is inserted
into *J. sclerotica* at its anterior part.

4. *Rectus externus*, or *Obliquus* -
arises from the *J. tertium* of *J. N.*
is inserted into *J. sclerotica* at its
posterior part of *J. globe*

Obliquus superior or *Obliquus* -
Major arises from *J. tertium* of *J. N.*
is inserted into *J. sclerotica* along
internal & upper edge of *J. sclerotica*
most of *J. N.* *Obliquus inferior* is
inserted into the middle & upper part
of *J. globe* of *J. eye*

Obliquus inferior arises from
part of *J. tertium* of *J. N.* about *J. C.*
of *J. N.* *Obliquus inferior* is
inserted into *J. sclerotica* at its
under part of the globe. The
optic nerve runs in *J. middle*
of *J. 4 recti* muscles. Their names explain
their action.

Eye-Ball

1. In *J. body* of *J. eye* sac is
placed - it may be the *J. eye*. The
aqueous humor is the *J. eye*.

1a The tunica conjunctiva covers the
upper eye lid internally - i. e. reflects
over all of fore part of eye globe a
fine watery fit transparent membrane
cornea bulba / & the lower eye lid
w^h it lines - The conj. Mem^o. Thins
is cov^d externally by epidermis -

(g) The Albugin. can scarcely be call^d
a distinct speaking as it is only of
chambers of tendons of muscles of
eye inserted into the sclerotic & thus
sub cov^d of whole fore part of eye globe but
only narrow spaces of bulba of eye tendons.

(6) A piece of cornea dig^d & put
on glass, magnifies even a little
but not so much as eye ball.

(7) What is call^d toptum & urea

[illegible]

(a) Quercus ~~lobata~~ longifolia
(g) Albizia

The cornea is J-shaped or at least of 2 up - It is divided in to
form a Lucida & Opacities - The latter
is said by some Anatomists to be una-
nated - but Mr. C says not - It is in-
deed thick to make one suppose it is
composed of a ligament & alone, & has
a good deal of elasticity - The cornea
Lucida or anterior part of Sclerotica
is extremely thin & transparent - The
cornea does not appear to have any
sensibility from several experiments

[illegible]

Q/ We find the iris of several colors
in the same animal as well as
in different animals - as grey blue black &c.
It is not cut round the globe of the eye
but begins about the ciliary process & forms
a sort of curtain in the front of the eye

(as in any case of preparation in
the brain as in the case of
the cranial nerves)

6/ The Pupilla is a space in the
iris which is constantly contracting & dilating -
being of the same size being very
contracted or contracting on the rays
of light being applied too strongly or
suddenly - as when a person comes
out of a dark in a light room &c.

2. 3.
 in Gland. & a contin. of J. tho the
 coat & they name the said tube mus.
 M. 1. M. 1. & more probable than
 if they are ligam. in locis — These
 processes are continued into J. crystals
 3. This small & from its ~~diff. in~~
~~color & diff. in~~ ~~diff. in~~ ~~diff. in~~ ~~diff. in~~
 very hopefull & of transport & access
 contraction & dilat. but it is not
 strictly muscular — It is constantly
 narrowed in its orifice but remains
 dilated in J. Gullett & Arteria

Apoplexy - Apoplexy - Fainting
 &c. - The insensibility is attributable
 to the most powerful stimulus - Is
 as muscles are - No contraction
 may M. L. think has been from
 dissection of J. J. articles of the
 the section of the penis nearly
 lacerated - The incision we see and
 muscular fibres, yet it probably may
 have been -

(4) *Membrana Capillaris* is found
in J. f. at 1st above J. f. ^{the} on the
It is a very fine & thin membrane
extended over the circumference
of J. papil. - Its vessels are extremely
small -

Picture of the Globe of J. B. L. and P.

The green pigment is a thin
 transparent layer of green
 covering the ~~outer~~ under side of the
 choroides or tect. of retina -

g) Mr. L. thinks the retina certainly
an extension of optic nerve.

h) The cavity in which aqueous humor
is contained is divided into
the Anterior, &
the Posterior Chambers, by the
iridial processes.

i) or tunica areolaris

The cataract is an opacity of the
~~crystalline~~ crystalline, & sometimes of
the capsule &c

The glaucoma is an opacity of the
aqueous humor — Mr. L. structures
on surface, on the vis. of the eye

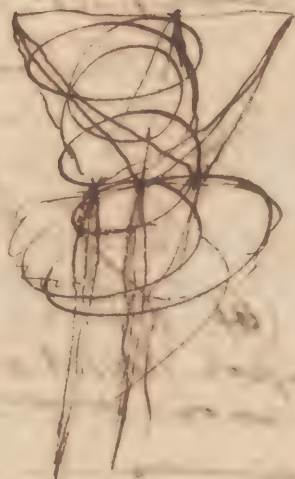
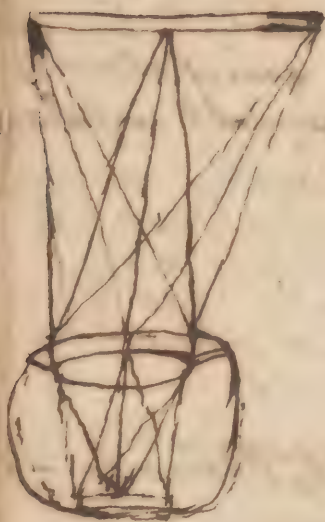
j) The capsule of the vitreous humor is
single when ~~the~~ except round of crystalline,
where, it doubles & forms a zone

as it supply the coats of eye

164 Mr. Linnæus has it appear without
it. Optic nerves are fibrous - for he
shows a great^{er} of it. Linnæus

165 Mr. Armethe thinks they do not
disrupt but merge in —

166 When we look on the surface
of a glass, the apex of eye rays of light is
in our eyes, & if we see only glass, but
when we look at a small body, it
just the reverse of apex being at
body of ^{light} ~~light~~ in our eyes



(a) If a piece of money be put into
a pitcher & this be drawn back
as a table for our eyes till the
money cannot be seen, we shall
find that on the bottom being
filled wth water, the money will
again come into view, so wth of
refract. of rays of light.

to them to a point, and from thence they
refr into 7. niches. Now from this
act is conceived by Dr. Fordyce,
says if I may ~~draw~~ the power is
large respect to how dr. is too wrong
for the estimation of light.

Isaac says that a ray of light is
smaller in it's corp (at least fine) smaller
than a hair - but such calcul^s must
be very inaccurate. It is impossible
to ascertain how small.

There are but 3 original colors
blue - red - & yellow - from a mixture
of which all other colors are formed
thus violet - orange - green - indigo - are
made by a mixture of 'em - for there
are no other colors - but gradations
of these -

The angle of incidence is always
equal to the angle of reflection.

The angle of refraction when light
passes from a rarer to a denser body
as from air to water, it is always
bent towards the perpendicular - but
when it passes from a denser to a
rarer medium as from water into
air, it rays are alw^s bent from the
perpendicular (a)

If rays of light pass thro' a convex
surface they will come nearer the
perpendicular & afterwards unite
in a conic form - but if they pass
thru' a concave surface they
diverge & of course go further from the
perpendicular.

The rays of light fall upon the cornea
& it being a denser body & very dense
in comparison to the air, they are refracted
them considerably - they then pass thro'
the aqueous humor - & are refracted
and to be bent by the crystalline lens
into the vitreous humor - & are
power of refracting from the denser, & convex
of rays from the convexity, brings (b)

[Faint, illegible handwritten text, likely bleed-through from the reverse side of the page.]

That the image is painted on the
retina is long a doubt - & it is almost
inverted. ~~the image of the eye~~

The reason we do not see double
must certainly be, because the
impression is equal on both eyes - &
at the same moment.

Mr P says it in Chastelville, the
villages are calan & pican. The
in people of J. opposite character —
of the postcard showing, opens behind of
Galate into J. under the same name but the
~~this may be~~
D. An Spatkinata &c.

Lecture 8th Of the Organ of Smell

Nature seems to have provided us with this organ, if we may be able to distinguish between good & prevent it from being taken into the stomach or respiration & so into the lungs.

It is remarkable that this organ is not as sensitive as the organ of smell in quadrupeds. That of human species, as they have not reason to direct themselves of choice of their food. But are guided by instinct alone.

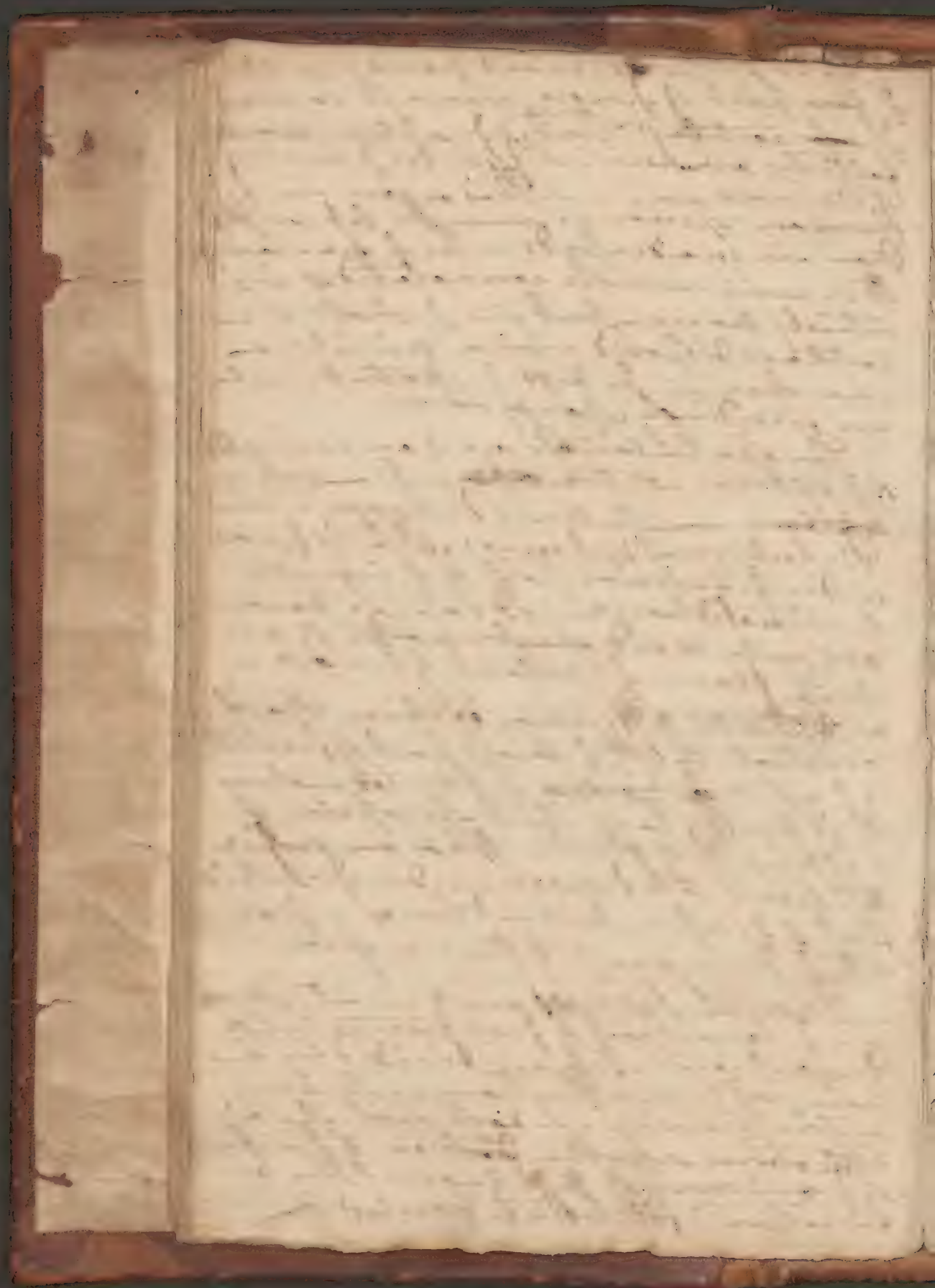
This organ appears to be connected with the olfactory organs & sense as if eyes - ears - & mouth - Thus we find if dis. of eyes will find himself by smell applied to it more & more & more. The terrible noise of the sea - the smell of the sea - no method of hearing but that of the nose - for he has no Eustachian tube.

The nose has been divided by Aristotle into *nasus durus & molli*.

The cartilages are ~~divided~~ five - 2 superior - 2 inferior - and the septum nasale (1) One superior & one inferior are on each side of the septum - The inferior are called alae nasi.

The Nostrils are divided into anterior & posterior - of latter being only the front portion part of the septum of the nostril. Schneider's Membrane covers the whole of each side of the septum nasale & is extremely vascular - It is supplied by branches from the internal carotid, the superior maxillary - Several small arteries from the foramen & come from the

a. When matter has formed in
of an hour or less the best
way of evaporation is to draw out
of the solution - J. 2. or 3rd of time
is no longer so valuable and with a
trace



Maxillary Sinuses
The cells of *Sphenoid Bone* are situated behind of *sphenoidal tuba* Morgagnii - under *S.* They open by a small orifice in each *sinus*. There is no septum - but they both form one cavity - each is so large as to hold perhaps of 1st joint of 4th fore-finger - All the mucus comes as reservoir of *S. mucus* thrown into the nose.

The *Olfactory Nerve* is a thin part in small filaments thro' *S. foramina* of *S. cribriform bone*, sheath of *Dura mater*, and on upward thro' *foramina* of *S. ment.* *Schneideriana*. Besides *S. olfactory*, *S. nose* is supplied by *S. 1st branch of 5th pair* or *olfactory Willis* - as *S. 3rd branch of 5th or maxillaris inferior* sends a branch to *S. torus*. This may account for the great sympathy between the organ of taste & *S. foramina*. It has been asserted by some that *S. olfactory* was the *S. nerve* for *S. sense* of *S. sense* of smelling, & if *S. olfactory* had no share as it could not be cut into *S. membrane* of *S. Schneider* - but this *M. J.* contradicts for he has a *S. 1st branch* which I had in some fine filaments into *S. foramina*. This membrane of *S. torus* is very thin. It is very evident, but cut in large branches.

[Faint, illegible handwritten text, likely bleed-through from the reverse side of the page.]

Physiology of Organ of Smell.

Sept. 9th

Man is inferior to the brute creation in their olfactory powers. Even insects exceed man in smelling & birds also - but they are deficient in many senses which man is possessed of. Some bodies emit effluvia by being rubbed. Thus with it. Scheele says if glass men has effluvia it is perceptible - but this Mr. L. is averse to the doctrine matter. Odoriferous particles are spread to a great distance. It is said 40 miles, as sailors going to the coast of Arabia's Gulf - and this also has odoriferous particles properties will bear. Smell seems to be the material being in the composition of powerful substances. For many bodies possess a suggestive property. Thus pepper by the top of this smell.

Galienus says man has a great power in reconciling us to disagreeable smells. For we find that after being for some time accustomed to any offensive effluvia we are afterwards insensible of them.

as the Phoenix is thickened, according
to the new chemical theory, the body
begins when exposed to fire of a strength
in the same way as the coal, may be converted
into China —

The nose we are well known to be
substance, we also inspire many
quickly — Dogs are found not only to
this but also throw out a quantity of
air immediately after to enable them
to smell more acutely —
The nose is evidently of great use
in keeping the extremities of the nerves
moist & enabling them to receive the
degree of most exquisite sensibility
The cavities or sinuses communicating
with the nose, may (Mr. L. thinks) be of
some use in assisting the voice
in the sound, as well as to serve
as reservoirs for mucus — Gallen
duct is not of the same function

At So exquisitely ^{fine} of tip of tongue
with regard to touch, that when
Jewellers can discover no other
means of the ~~diamond~~ stones are
precious or not, they are enabled
to judge of it by applying the end of the
tongue to it - which is capable of feeling the
smallest degree of roughness
(6/2 maxillaries inferiores

Edm. Smith

Of the Organ of Taste

Nature seems to have provided us with this organ, to enable us to discriminate betwⁿ food of. is not only to of. body - or the reverse -

in of. tongue there seems to be 2 senses combined - that is, that of taste & that of touch - for of. tip of of. tongue has of. most exquisite sense of touch (a). The papillae give in a great measure a right way of. mouth as well as eyes in guiding - eating -

The Membrane cov^g of. lips & mouth is extremely fine - Under it may be felt small round glands, call'd *Glandulae Labiales*, & *Buccales*. They are most numerous about of. angle of of. mouth - one on each side

The *Maxillary Gland* (call'd submaxillary by most Anatomists. tho' in properly it is called *Thyroid Gland*) is situated on of. stylo-hyoid muscle under of. posterior part of of. lower jaw - The *Ductus* (or tube) of sublingual gland & stylo-glossus - opens under of. tongue about of. symphysis of lower jaw -

Sublingual Glands are 1 on each side of of. lower jaw - The hard edge of comes in contact with of. glossus - They form a chain of it upper part of. tongue - Their ducts open into of. mouth on each side of the tongue near the tip of it -

(a) or Maxillaries Superiores -
 are situated about $1\frac{3}{4}$ in. of 21 mm. &
 20 mm. from the 1st lower jaw -

(b) is situated opposite the space between the
 2nd lower incisors -

(c) The uvula is formed by a redoubting
 of the internal membrane of the
 mouth. The uvula &
 Pylor arch from the Velum Palatinum
 Palati.

Constrictor Pharyngis is
 a muscle attached to the sides of the
 tongue & the middle of the hard palate.
 It is composed of 3 parts - the upper part
 of the hard palate, the middle part of the soft
 palate, and the lower part of the pharynx.
 It contracts and narrows the passage into the
 pharynx - some call it the uvula.

The 17818 (Lan) 17818 on each side
partly on the ascending ramus of
the jaw - partly upon the maxilla
a little before the first part of the little
bone - and then under & behind
of cartilage part of ear - The duct runs
over the middle of the buccinator
& opens into the mouth by a
small orifice opposite of 2. Dent ridge.

The Roof of Mouth is div. into Palatum
Durum & Molle.

The Pal. Durum or hard part of the
roof of mouth is covered by the epiglottis.
The membrane under seems to be
covered by a skin. This is extremely
vascular - studded all over with
glands - When this membrane is re-
moved down on the peristome
covered by a lamina palati.

The Pal. Molle is an arch of glandular
flesh arising from one side of the mouth
again & over in the form of an arch
over the roof of the mouth - some distance
to the other side of the mouth - In its middle
is situated the Uvula a little
more backward than the arch -
each of the 2 arches is of the same kind. Between
these 2 arches are 2 tonsillae
on each side of the lower part of
the arches - Besides these 2 tonsils
there is another ~~co~~ glandular
the 3rd Tonsilla Fortia. It is
situated posteriorly just behind the
palatum durum - When it falls
down - it is applied to the roof of the mouth.

a. In branchions, we are oblig'd
to cut thro' a part of this gland,
which stands, it has been advised by
some to avoid it —

D. The substance of tongue is made
up of muscular fibres dispos'd in
different directions, so as to give all the
actions by their contr. in these
various situations —

(b) than in other parts —

(as the papilla are mucous, principally
of internal secretion, made of f. of them.
of f. of nerves & theref. extremely sensible
in them lies f. sense of tasting —

Section 8. Organ of Taste cont.

The Tongue is of a
similar shape, composed of 2
lobes as it were connected by a small
portion of its own substance - It is
situated ~~in the~~ on the ~~base~~ ^{inner} surface
below the ~~oral~~ ^{oral} cavity - It is ~~highly~~
vascular, & has also absorbents - It is
principally supplied by a lymphatic
in its ~~substance~~ ^{substance} - ~~It is~~ ^{It is} ~~con-~~
sidered as being in the
substance of the ~~lips~~ ^{lips} & ~~more~~
of the ~~lips~~ ^{lips} - It has ~~an~~
a little ~~pro-~~ ^{pro-} ~~truding~~ ^{truding} ~~up~~
in the middle - It is ~~also~~
It has 2 ~~pro-~~ ^{pro-} ~~truding~~ ^{truding} ~~up~~
are ~~found~~ ^{found} ~~upwards~~ ^{upwards} ~~in~~
thought it connected ~~to~~ ^{to} ~~the~~ ^{the} ~~pharynx~~
but ~~it~~ ^{it} ~~is~~ ^{is} ~~a~~ ^a ~~diff.~~ ^{diff.} ~~from~~ ^{from} ~~the~~

The Tongue is ~~very~~ ^{very} ~~long~~ ^{long}
down to the ~~pharynx~~ ^{pharynx} ~~of~~ ^{of} ~~the~~ ^{the} ~~pharynx~~
jaw ~~is~~ ^{is} ~~the~~ ^{the} ~~most~~ ^{most} ~~of~~ ^{of} ~~the~~ ^{the} ~~mouth~~
it is ~~detached~~ ^{detached} ~~only~~ ^{only} ~~by~~ ^{by} ~~the~~ ^{the} ~~gums~~ ^{gums} ~~or~~ ^{or} ~~as~~ ^{as} ~~by~~ ^{by} ~~the~~ ^{the} ~~gums~~
as by ~~the~~ ^{the} ~~gums~~ ^{gums} - It is ~~also~~ ^{also} ~~in~~ ⁱⁿ ~~the~~ ^{the} ~~mouth~~
sides of the jaw at its posterior part &
to the hyoides & the ~~staped~~ ^{staped} ~~process~~ ^{process}
by muscles &c.

Haller says that the tongue is covered
by epidermis and that its ~~growth~~ ^{growth}
is owing to the papillae ~~but~~ ^{but} ~~the~~ ^{the} ~~growth~~ ^{growth}
but does not think that it has the
true mucous coat - Mr. C. ~~however~~ ^{however}
proves it is ~~not~~ ^{not} ~~the~~ ^{the} ~~same~~ ^{same} ~~as~~ ^{as} ~~the~~ ^{the} ~~mouth~~
as the ~~mouth~~ ^{mouth} - The epidermis
mucous of the tongue must

a. all these are called in
general *g. villi of f. tongue* or
papillae — — — — —

b. The fluid of the mouth is composed
partly of Saliva & partly of Mucus — &c. —

of. nerves & nerves act upon in testing. in soft
hand. in all of - & it is not in the same.

The (hoppers) of the tongue are much
larger towards the root than many
of the - & they have been called
papillae fungiformes - those a
little nearer the tip of the root are
a little smaller & are called truncati
more further caudate & those nearest
the tip are very small & filiformes (a)
about an inch from the root of
the tongue on its anterior part there is
a small hole call'd foramen caecum
this is a blind gland - The tongue is
in a - in fact is covered with
four quarters of - clenching of these
in the

Gallies are seen in the - & root of
the tongue in great numbers - These
are the mucous in connect. glands
on the under side of the tongue not
in the or gallies are - present
it is perfectly on the root of the tongue
a very fine membrane (L. 6)

Below the retro-mucosa there is
something more like cutis - but is
not so. (L. 7) -

The Lymphatic Vessels are in
branches of the external carotid artery
run along the sides of the
or hyoid & along the sides of the
tongue -

Lymphatics of the tongue certainly

[Faint, illegible handwritten text, likely bleed-through from the reverse side of the page.]

(a) In pregnancy - chlorosis seg. of
testis seems ~~also~~ caused by atrophy -

(b) Left test. appears a good specimen
of the organ. Right test. appears as a
better specimen than the left test. as it is

Mucus as well as taste seems
to be principally in the tip of the
tongue. The edges of the tip of the
tongue appear to be more of a moist
fleshy substance & feeling, most of
the tip.

The Saliva has a consid. quantity
of salt in it - but the reason we
are not sensible of it, is probably
because it is constantly applied
It has somewhat a bitter taste, as we
just hear people complaining of
in the same way - viz. a bitter taste
in the mouth (a)

It seems amazing how custom
act in rendering those subst.
agreeable to us, & on first view
even quite of reverse - as wine
cellery &c

The Mucus sec. in the mouth
appears to be intended to keep
the humidities of the mouth constantly
moist (b)

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The Organs of Hearing.

L. N. 1878

The ear is a sense organ placed by Nature at the upper part of the human body, that sound may be made more sensible to them from so elevated a situation. — The Pharynx, Gullet, & a mind and ear, & the ear itself, is certainly one of the greatest. Hence we see that those who are born deaf are rarely so lively, but only of a defective disposition, and most probably for this cause.

The temporal bone is extremely hard, most likely to preserve the organs of hearing. The ossicles within is supported.

External Ear — Many animals have no ear as the turtle. The organ of hearing in species is formed of several spiral ridges with intermediate cavities.

Bacon employed a whole year in study of this organ of sense, and found that the ridges in the external ear are disposed into the rays of sound, of angles of incidence, & have a quality of reflection of all these rays at least with the greatest mathematical accuracy.

The Helix is the external ridge of the ear. The Antihelix is the 2^d ridge which divides into a series of its upper part — which are

The space within cavity called the
cavity in nominata

(a) The outer ear is entirely cartilag.
except at its lower part of lobes.

(a) The Pinna or wing is the upper part
of ear, or helix & antihelix &
The Fibra of lower part, or lobe

(a) The greatest length is not more than
1 1/2 inch - going not more than 1/2 or
1 in some. The thickness is
not down of greatest part of it.

(a) The membr. tympani is set in a bony
circle of ossified bone - or rather
not quite a circle - but within about a line.

(b) The 1st of 2 parts of ear of a dog is
a part of the membr. tympani
with a humming noise, when the ear was
hitting near in course. The 2nd
is the violent of 2 parts on a cough
for near a fortnight, when they left the
2nd part.

all of the area of J. a. Theloh
The Septum Concha is a thin ridge
of J. in of internal ear - it is
as if it were a comb of J. helix. The
lunules of concha or hollow of J. ear.
The cavity betw. J. helix & a. Theloh
is called J. cavity of J. helix - of J. next
J. cavity is a. Theloh -

The Tragus is a little prominence
at J. lower part of J. ear internally
on it - a few hairs grow -

The Antitragus is a little semi-circular
promote of tragus - at J. ear. Next
to ear is a little lower (at J.)

Meatus Auditorius Externus is
of a strong canal extending from
J. external to J. internal ear. It is
about an inch & a half in length. The
at J. internal ear it resembles very
much a trumpet, growing gradually
narrower as it goes to J.
internal ear.

Glandulae Ceruminosae are little
oval glands about J. size of J. pin's
head. It is of 40 or 50, situated under
& behind of external ear in cellular
substance. They open into J. ear & secrete
the wax of J. ear.

The bottom of J. meatus auditorius
is situated a membrane, called

4 Membrana Tympani - or called

on its surface at J. tympanum
the hammer and anvil of head of drum.
This membrane is divided into 4 laminae - of J. anvil in the
is of J. anvil. The J. hammer is reflected
over it in a very fine coat
of J. anvil. The J. anvil is

The middle tympanic is concave on its external part in of human species, that of a horse in birds & seal. The animals the rays of sound are collected into one point as in a focus. It strikes on the middle or most concave part. It is extremely vascular & its art. & vein run in a radiated direction from circumference to centre. — It is somewhat perforated naturally the very rarely — In this case of. g. may be seen others of. g. post. nostrils into of. Eustachian tube & a sub. abt. external cavity

The Eustachian Tube is partly a wing — partly a cartilag. canal — cont. from of. internal ear to of. palat. max. malle; where it opens in of. form of a trumpet. This only from of. is exactly opposite to of. posterior nostrils — The reason of food does not get into of. Eustachian tube in swallowing is because of. velum pend. — that it is pulled below of. Eust. tube & posterior nostrils by of. constrictor & other faucium. We frequently find of. when food is passing & immediately returning from of. stom. a vomit of. It is of. it is enlarged comes that of. posterior nostrils into of. nose. It may come into of. Eust. tube by this means —

Lecture 2nd Organs of Hearing

The Osicula Auditus are little bones connected with each other
1st The Malleus is immediately on the inside of of. membrane by of. lig. & it is tough, being of. it is by of. handle
2nd The Incus it resembles a

14 callidus foramen ovalis

~~Coste~~
anvil - It has a head & 2 legs - The head is articulated with the head of the malleus

3^d The Isorbiculare a small bone about the size of a moderate sized pin's head (such as of a small bone in a lady) which joins the long leg of the incus. to the

4th on the stapes, so called from its resemblance to a stirrup. It bears staped upon it. Foramen ovale -

The Foramen Ovale is a small foramen leading of course into the vestibulum

The Foramen Rotunda is another small foramen leading to the cochlea. It is covered with a fine membrane

The Vestibulum is a cavity in the os petrosum behind the foramen ovalis.

The Labyrinth is three semicircular tubes springing into the vestibulum called external - internal - superior canals.

The superior & internal canals open at one end of their ends by only one orifice - so if all the canals together they have one orifice into the vestibulum

The Cochlea is very much like a snail's shell, except it only makes 2 turns so half instead of 3 or 4. It is divided by a septum partly bony partly ~~membranous~~ - The upper canal opens into the tympanicum - the lower into the vestibulum

The Ducts of Salivaria are 2 ducts coming from a sinus in the dura mater out to the vestibulum of the stapes to the cochlea -

The Portia Mollis of the auditory nerve enters the vestibulum & goes to the cochlea.

The Portia Dura is sent to the external Nerve about 4. car

[Faint, illegible handwritten text in cursive script, likely a letter or manuscript page.]

1900

Physiology
of the Organs of Hearing.

To produce sound, vibration is necessary - Thus if we put our hand on a bell ~~the~~ vibratⁿ is prevented, owing to it. Impulse on it. causes vibrating particles - Fluids & solids are both capable of vibration in their elementary particles and therefore most of them prod. sound. The same is not ^{allegedly} the case of elementary particles they change from circles to ellipses or from curves to straight lines - The more elastic bodies are & of ^{the} higher of vibratⁿ have they, & I can hear sound has been found to travel at the rate of 1473 feet in a second by some. & more or less by others - We might have been misled by circumstances as of velocity of sound - Whos been said of sound might be heard 200 miles - Gallen gives an instance of a firing being heard 164 - But this is not the original sound entirely for it is a part of it is of additⁿ it receives from diff^{erent} bodies as far as echoes. In this manner echoes have been heard 50 or 60 times, owing to it original copy of it. sound being reflected to one station to another side by of reflectⁿ. The denser & denser air is the more proper a medium is it to convey sound thus -

Sound is common under water
much more certainly than was
formerly imagined - L. D. Franklins

1870

[The text in this image is extremely faint and illegible, appearing to be a handwritten letter or document.]

experiment of sheaving two stones
together under water. If sand was
found at a dist. of 2 miles by a person
under water

In the reign of J. Emperor Claudius, the
Roman aqueducts were fit to convey
J. water of J. water 16 miles.

Sound is not by much so easily trans-
mitted thro' moist air as dry, & wth it
want of elasticity - Thus in damp or wet
weather sounds are scarcely heard,
any wth bod^y also prevent it - & also
prevent any echoes being made - a
cave - but in nature, &c. -

respect - but nature &c
 American has been sufficient to include
~~with~~ & clear the woods - as
 well as to prevent any thing getting
 into the camp -

The muscles M. 1 are to ^{muscles} be tightened, or relaxed. - ~~muscles~~ tyrannical according to J. Chamberlain or ~~muscles~~ maker in prop. of - are made on it by - ~~cannot~~ -

The cochlea appears to be the part in which sound is principally perceived. Some have thought that effect in a very wise degree.

The duct of *Salmonus* M. L. knows
no other use of, except as a canal for
anterior & venous —

(4) Cold, by its action on the nerves of
the face, will go on to stimulate the
arteries, as to excite a great degree
of blood to the face - Heat will also
stimulate them, as to occasion nearly
the same effect -

Section 1. of the Organ of Feeling.

The skin as it envelopes the whole body, is endued by such exquisite sensibility, appears to be intended to shield the body against any injury by informing the sensitive principle.

The ductility of skin is a phenomenon for this is, every individual in ascites & parturition in both sexes we see skin distended to an enormous size, especially the perineum.

The skin does not undergo the change in these parts, for we find off marks & stains made in the skin powder &c. continue during life. The skin is extremely vascular - but especially at the ends of fingers - tip of tongue &c. - This much more vascular than in young men & in females than in males. The skin is very well supplied by absorbent vessels. Whose objects they all come from cellular substance underneath - but Mr. L. says that they are proper to the skin, & originate in it. (4) The power of distension in skin is essentially necessary - for if it did not this power in pregnancy, ascites &c. the abdomen must burst.

The skin is certainly more firm than any other part - for the earth & bones is constantly changing - and for the particles of muscles &c. It is but the case with the skin as we see by sailors &c. mark of it in the powder for the insuperable firmness of the

(as we find also that a person who
has ~~the~~ in a bath, is heavier by
several ounces than he was before
this is due to the by transudation & not
absorption. I strong proof of it is
being by transud. i.e. that in desiccating
if they are not cut, soon or some way
but the fluid will not be used in
the smallest degree.

His opinion of action & absorption is
now contradicted by the experiments of
some degree & a - M. Thurner
has shown that ~~the~~ of the ~~the~~
injected of the ~~the~~ of the ~~the~~
is a power of absorption of ~~the~~ and a
result of it.

B. M. C. thinks the intestine is
formed of ~~the~~ of the ~~the~~

make even so early in life

There is ~~integrity~~ ^{absorption} in absorbt. except in
of integument. - for mercury we see is
absorbed from the surface of y. body (M.
L. does not think y. of means of integum.
have any power of absorption - but
that the lymphatic v. p. of y. effect -
there are NERVES distinct to the integum
call'd cutaneous nerves -

J. Hunter imag'd that the small head
under the skin of a goose, w^h makes its
external surface appear so irregular,
were glands - M. L. is entirely of this
opinion

The integ. are divid'd into 3 layers -
Cuticle - Cutis - & Rete mucosum -

The cuticle may be divided into 3
laminae by much, - some p. more
this merely owing to the thickness of the
cuticle, that some people can stand on
rubious &c. with. they burn - The
cuticle is most highly forn'd of the
summit of papils - tho' they are with
vascular when forn'd into hair 16
The rete-mucosum may be divided
into 2 laminae

The Cutis - The nails are to come
under this head - for they are a contin.
of the cutis - M. L. does not think the
nails ever become vascular -

The hair may be seen in the skin
of y. finest & most delicate skin, w^h a

[Faint, mostly illegible handwritten text, possibly bleed-through from the reverse side of the page.]

(14) and also that the Society had a
feeling that Haller says with fortification
how would it be made to
dance on heated plates of iron?

seem as much as another organ
of sense as we see in some people feeling
cold while others are hot - We judge
of kindness by the touch - for a piece of ice
may seem warm to man and a child
would think the surface of a looking-
glass like that of water - Some bump
a plate to a man with the hypochondria
he is seized with horror & dread at the
sight of it

Buffon observes that man is, the
only animal, that has his hands
furnished to have an accurate feel and
that our ideas of feeling are more accurate
by 5 fingers than one - but Haller says
not - as one finger is best for feeling
Dr. W. I. thinks true, as when we
want to feel any thing minutely, we
generally apply the middle finger
to feel accurately, there's some degree
of friction - Some say we feel shew
from the papilla existing in the same
manner as the wrinkles of woman &
papilla of the tongue - but where we
have most exquisite feeling, the papilla are
longer - yet the papilla are longer where
~~and touch is not~~ it is not necessary as
in the posterior part of the finger under the
nail - Dr. I. says there's feeling there
Dr. Haller denies it

As you may feel heat & cold in the
ingestum but not noticeably - I think there
are certain bodies fitted for the food in
the hand -

16. This Mr. L. says is for Cratic, just in
the same manner, a true food & taste
for the palate, it contains ammoniacal
salt.

Some put your hand into a cold glass
it will feel hot - we apply this to
solids, for after a certain degree, we call
in the organ of spirit as at 1 - a heated iron
is blue & at last red - we judge of some things
in this manner - but of many of the truths, hidden
many bodies are not, I don't think

... sense of touch & feeling the firmness of
solidity - the 2 former are applied to chord &
there is no sense of feeling - & cannot be
so well by sight - thickness & firmness
may be described by the sight - and also
by the internal feel but one can't see
the thickness well by the feel as the solid
the elastic & the soft & the hard by the
organ - but the eye may be deceived
as a warm & cold body will appear wet to
one sight - the same thing is by the
touch as the soft & the hard & the
also roughness & smoothness, we know
by this organ - the one of it gives us a
sense of pleasure in feeling & of other
affairs. We have then sense of touch
a considerable one - but blind people have
them to a much greater

The weight of bodies is discovered by
this organ as by the touch of the body
weight of the weight and also by the
pressure of the muscular force we exert
in raising the body - but we don't perceive
the weight of our whole body on our
feet ~~the weight of the~~

Heat & cold are very ~~very~~ vague
terms - for we have no way of judging
of it by the body, but by a thermometer -
it is compared to the human body, as the
common heat of it is 96 - it is also the
heat of the thermometer - for if it rises above
96, it's hot - or if it descends below a cold
may cold & heat

Gold is said to be a property
of it as it is judged of by the absence

(a) If heart had not been pleasant &
could disagreeable, we should not have
attended to either and of course have
been attracted by his & got that negligence

6 Mr. L. seems to be a Spinian that
abstinence for venereal is not permitted,
but falls in with the opinion of continentals
on the subject - and says, that it is
permitted in females & by epidemic
hysteria &c - but to Mrs. W. L. - septics
wherein, a woman have some
disorders when she is married if they
are for abstinence? —

(c) For if one puts the finger into a cold
alkali & presses it, the part will be
cauterized - or one might pinch the
finger so as to kill the part - a person
that of greatest pain in surgical part
is the division of the skin.

of cold - & therefore a negative - then
say, as distinct - I must be aware
the rest of the atmosphere - & of heat - the
one in contact with us & the judge of the
medium ~~from~~ the air - whether too hot, or
too cold. (a)

The ~~case~~ of pleasure in feeling, is
given in a stronger sensation the reverse
fact, than perhaps any other can
owing to the glass penis, & clitoris, & a
few others. but these & plenty of
the rest - the rest. The pain is not
only need. for the preservation of the
anima & - to it. Nature has either
given pleasure or pain but it is
object of Nature to give pleas. here for
the propagation of the species & pain
as a punishment for abstinence. (b)

Pain may arise from the irritat. of the
nerves of the skin, or a change in the
state of the nerve. as a blistered spot
to the atmospheric air will be irritated
again the connect. as well as providing
the nerves of the integuments & c.
Inlet. cap. of feeling only nerves, as cause
are account. with a deg. of pain (c)

Feeling is an extremely vague term
for we talk of the feeling of the mind,
bones, muscles &c.

The Touch properly speaking is feeling any
solid or fluid bodies with the point of the
finger or toes

The common intell. are not only
intell. a sensible cognition of the whole
bodies - but also for perception &c

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It is remarkable for the fact that
the difference in the position of the
the first point is visible in the
the second point is not visible in the
distinct in coming from the lungs
the first point is visible in the
the second point is not visible in the
in the second point is visible in the
the first point is not visible in the
the second point is visible in the
the first point is not visible in the

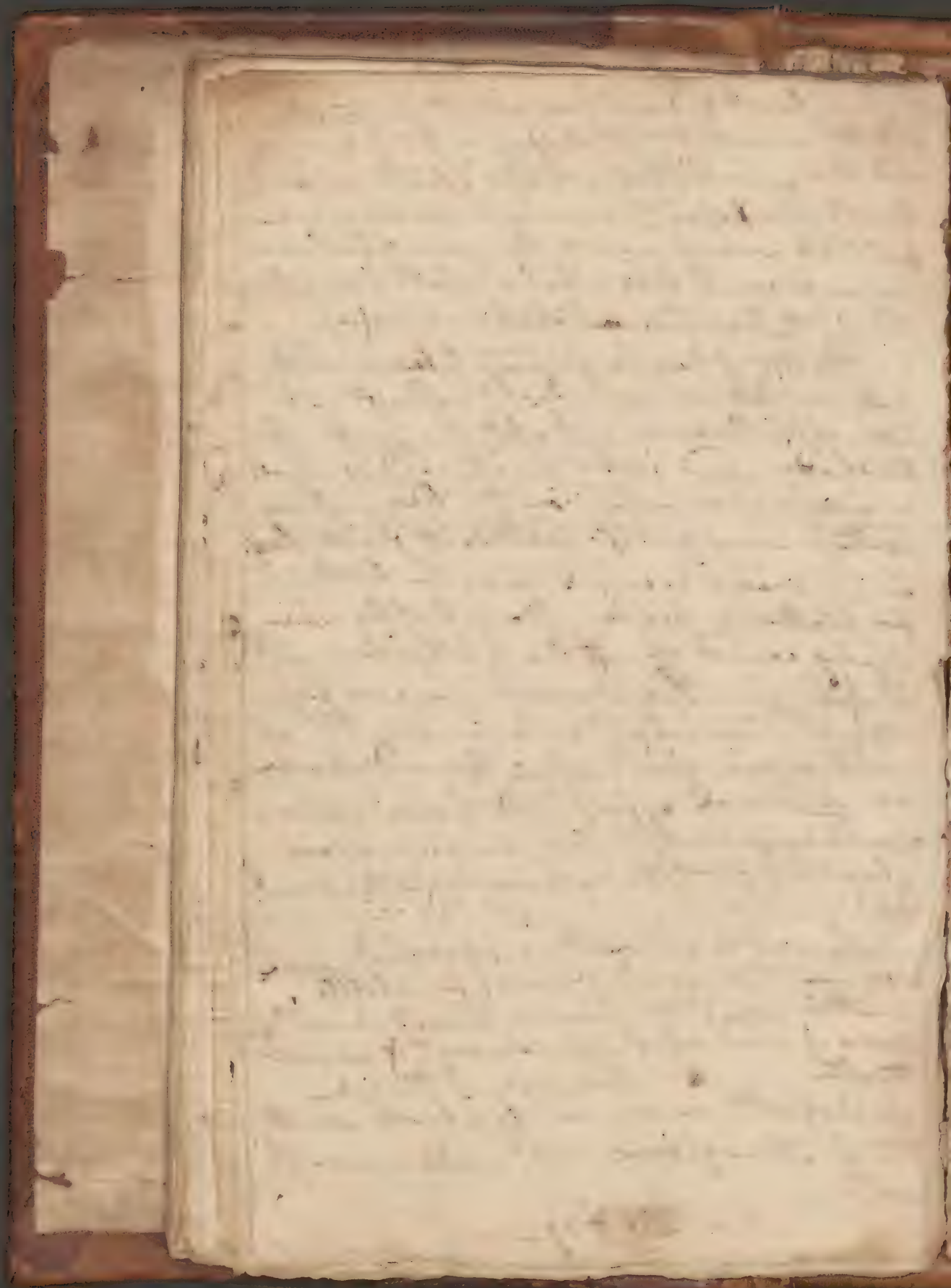
(a M. L. method to ascertain the quantity
of the skin, as thus (He took the skin
from Boarhara) - He first tried to find
the weight just as possible. There was 100
pounds. He said to be 124 grains
in a hair - a hair made upon a computer
100, 100, 100. It is 100 hairs and from
the number a hair 100 -

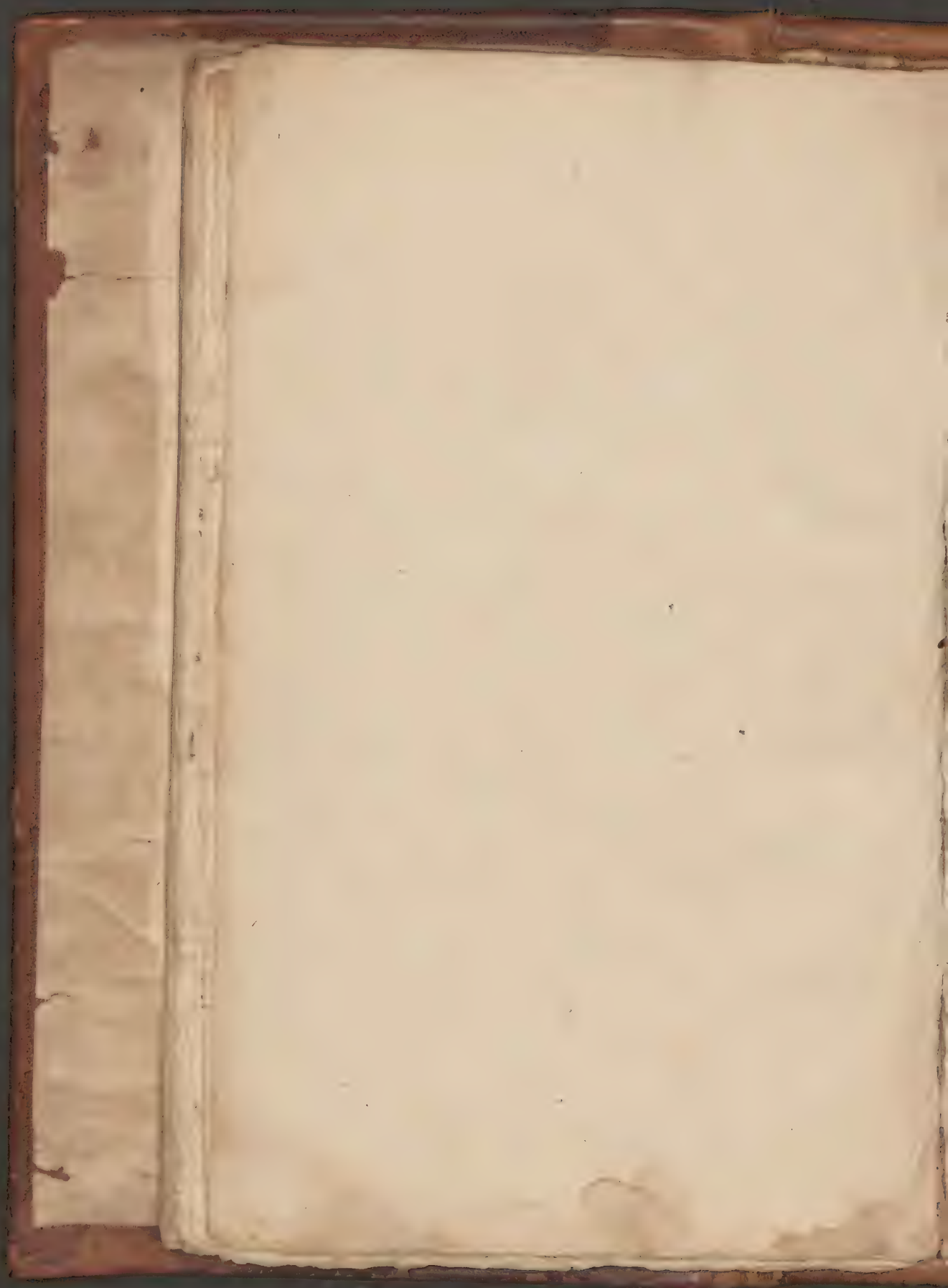
At the invisible part of the skin
is the more imperfect than
the skin - It is some distance on
the surface of the skin, & the skin
is the more perfect - The skin
is the more perfect of the body
is the more perfect of the body
is the more perfect of the body

[illegible][illegible]

I am in the new series for a little
matter and the series shall make
books I am also in cancer. I want
the other Henry James
in the same as Tolstoy's
of American literature - all made up
with

Side 327





Lectures

on

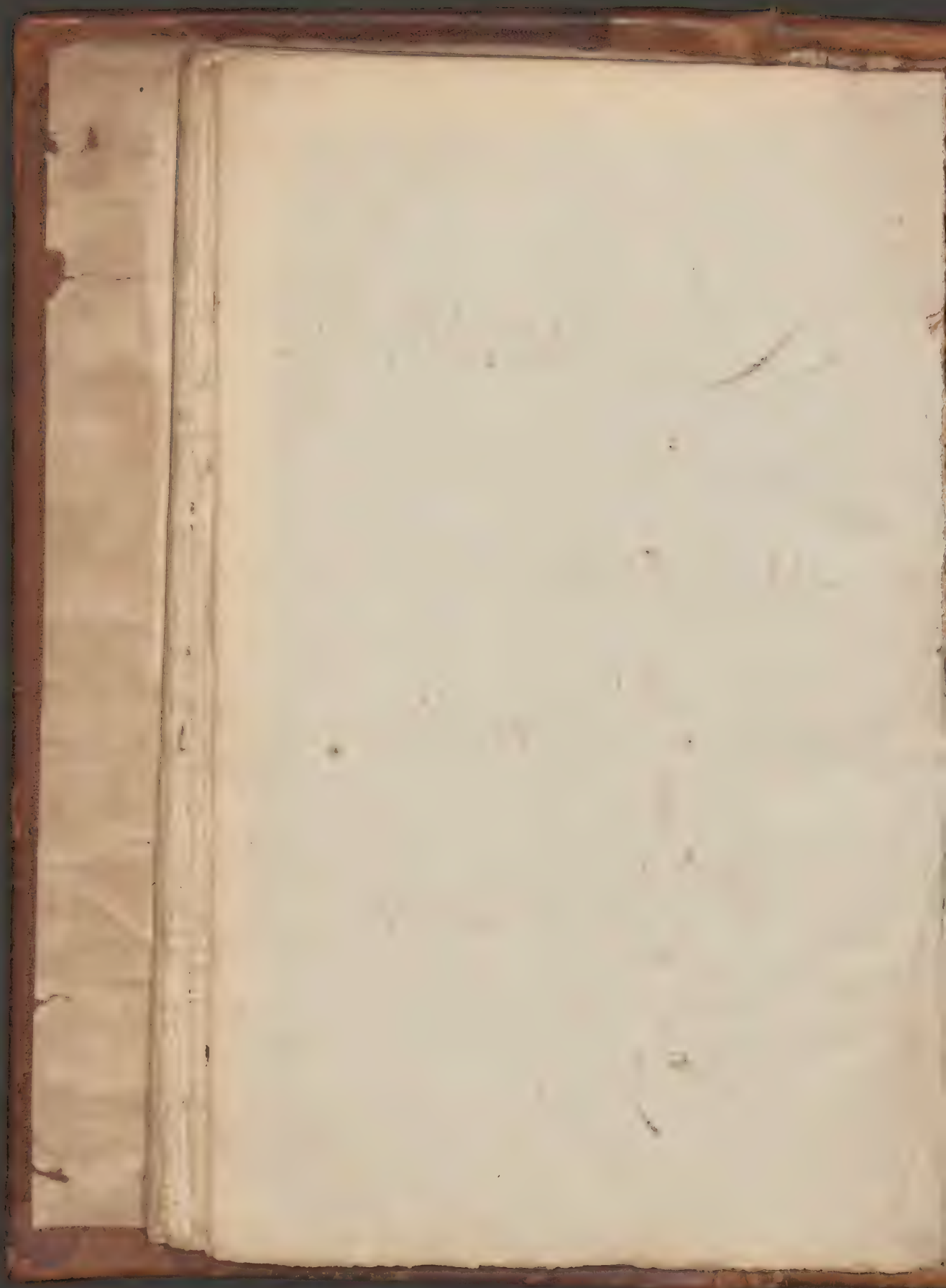
Anatomy.

By D^r. Baillie

&

M^r. Cruikshank

N^o. 7.



The Pathology of the Brain & Nerves

The English were the 1st who described these dis. which are call nervous - arising in a skull sense, means, whenever the dis. origin^l either in the brain, or in some of the nerves themselves. I shall 1st begin with accid. ^l happening to the system

Of Injuries on the Head.

A blow may be given and more or less violently, and yet produce a temporary disarranging motion & motion - but this will soon go off - A blow may be recd on the cranium so viol^l as to affect the brⁿ - which we call contusⁿ - In this case, there's no real injury done to the brⁿ - but it viol^l & of a blow only surprises the mind suddenly by giving too strong an irritatⁿ - Others have supposed it arose from the laceratⁿ of the medullary fibres - but Mr. L. thinks if force was more commⁿ & happⁿ.

The skull may sometimes be fractured, & yet hurt the brⁿ - though it's not alw^{ys} necessary to open unless the brⁿ is hurt in this case commⁿ & in curability. Mr. L. w^{ould} treat it as a commⁿ.

(a) The most distinctive mark of the
beⁿ are, slowness & fulness of the pulse
as in apoplexy - This sometimes occurs
but not very rarely -

...of the bone, as well as the
fract. may have happened. But there are
visible signs of fracture, & the bone
is - The course of a fracture may be
superf. of f. br. made either in a soft or
hard - when it may be caused, as a
species of a fracture, as a solid - as a piece
of bone - It is said, of the f. of f. br.
can't compress - but we know that it
may compress, as well as bone -

It is said, a solid or f. br. may be
in a soft - for if it is left on the
bone the f. br. will be cut off - for if
it will not bear extraneous substances
incorporate - but f. br. made in a soft
may be made & made in a soft - but
if slowly the br. will bear it much
better - A very little inch. on it, prod.
had come, as a piece of bone no larger
than the thumb will prod. much
sickness - would sleep - some. of f. br.
superf. & voluntary motion - so as to cut
off the f. br. But the br. will
accustom itself to slow & gradual
motion - Crust. may be made
of f. br. in various cases - as f. br.
f. mem. of the br. parting the bone
entering into the medulla, & a kind of
cicatrix, w. ulcerates the bone of
the cranium & yet not help - and the
man who the tumor is, & it

as this P. is found & such a piece
would be the of counsel. after
later & in child. being of counsel

- but as by examination seems to
be the same as the other, that I believe
the ^{same} ~~same~~ is the first -
Quantities, in which may be found
upon the dura mater & made of green
effect for 5 or 6 years - as St. Petrus
sup. may be made on of. for long
with but found out but the dura
mater & tunica arachnoidea - which
Hydrocephalus Externus - and if
it begins early may occas. the spine
ligida - it is water accum. & going
down to the brain -

The Hydroc. ext. is gen. a year or two
of coming on the top - and the fluid
accum. to it, if you take off. will
immedi. vanish & gradually fill the
cell. - If it happens in young animals
it may then be only confined to the
skull and not go to the brain to form
spina ligida. Hydroc. ext. is not
so common as Hydroc. internus -
It fl. w. may be either gelat. or wat.
may be known by the nature of the
arachnoidea & pia mater - as the
brain is an exudate of the vessels of
the pia mater
It may happen at all ages - it is
more frequent in the young than
in old people - but

a Mr. L. is said to be a, where
the other name is said to be - and
yet we had expected to find

[illegible]

The black. The MMS arises &
 makes in the ventricles of the brain
 the same full. gray white & ch. is in
 white and full. as the ch.
 when born is very white & light
 white than this
 The bones are much like women
 in the infant - and the dist. some. ex-
 posed - some. in the head of
 the brain. This is the first of the
 dist. of the infant - and all
 contracting, when the light is
 in it - some of the

a M^r. C. has seen the b^r. no further
than half a crown - and what's very
surprising, the child had sensation
to the last, in such a great deg. as to
know its nurse.

To say also the quantity of the
- laid surface of the brain in respect
to the face, as it is a child is of no more
than 6 months old. It is small
to be accounted with which off. more
improvement blindness & deafness. The
quantity of the matter is small. 8 or 10 parts
of matter accumulated. and Mr. L. conceives
it might go on to 12 or 14. - The action
of the brain is destroyed by pressure. At the
moment, the brain comes, the bones
set up a new process, & grows a new
matter. But as long as the bones give
way, of course, might go on. But it
disturbs when the bones will not give
way - and then the brain dies as in
an epidemic. This dis. takes place some
in the adult - but then it is gone in
4 or 5 days. Some of the cases seen
it is not as other cases. But I think
I have seen it goes on to accumulation. it will
kill much sooner, because the bones
of the skull at that period, are completed
- they are not in a young animal
as it may remain for 3 years
of age. - - - - - - - - -
- - - - - upon as an incurable dis.
in the early period of it. It is supposed

a Mr. L. has been informed by a
Gentleman, that he used to see
in a recent case of this sort by accident
in the morning every night. I
get - now - on the top of a lot. This
is a return.

nothing can be done but to keep
- out, nothing - We had 100
- in the harbor of course
as well as a grain taken every night
in the night in this case will be a
great deal of necessary - even more than
doubt - it is very surprising -

Epilepsia — Motus involuntarii fieri
omnes inminuti, cum sopore, plus
minus, profundo, subestate motu cordis
& arteriarum —

Sign. Nos. Ind. Galleni

Mr. L. relates a case of an apoplexy
suppression of the brain, where almost
the whole of one hemisphere was
connected into pus - and yet the patient
retained all his faculties till the
ground failed -
In hemorrhages in the brain, we
seem by much the best med-

Of Apoplexy. -

Dr. Cullen says of apoplexy, that
it is a kind of a fracture of the vessel
& depression - but this Mr. L.
does not call apoplexy - for in
this case, the patient does not
fall down senseless - or lose all
voluntary exertion & motion.
Mr. L. has never seen apoplexy
in the brain called of the
apoplexy - He thinks this species
only hydrocephalus internus. - tho' he
allows if of matter is suddenly
produced in ventricles of the brain
from any cause, it may be
called apoplexy.

Apoplexy is a loss of ~~voluntary~~ power
& voluntary motion - ~~the patient~~
often is insensibly dead? - the pulse
is in general extremely slow &c.

In this case where the
no self income means, believe
in their power - but this spirit - looks
in subject to go far, the result they
showed - that it makes them weaker

a Bleeding is here used on two
principles - one to open the power
section in the heart - the other
to determine the blood from the
head

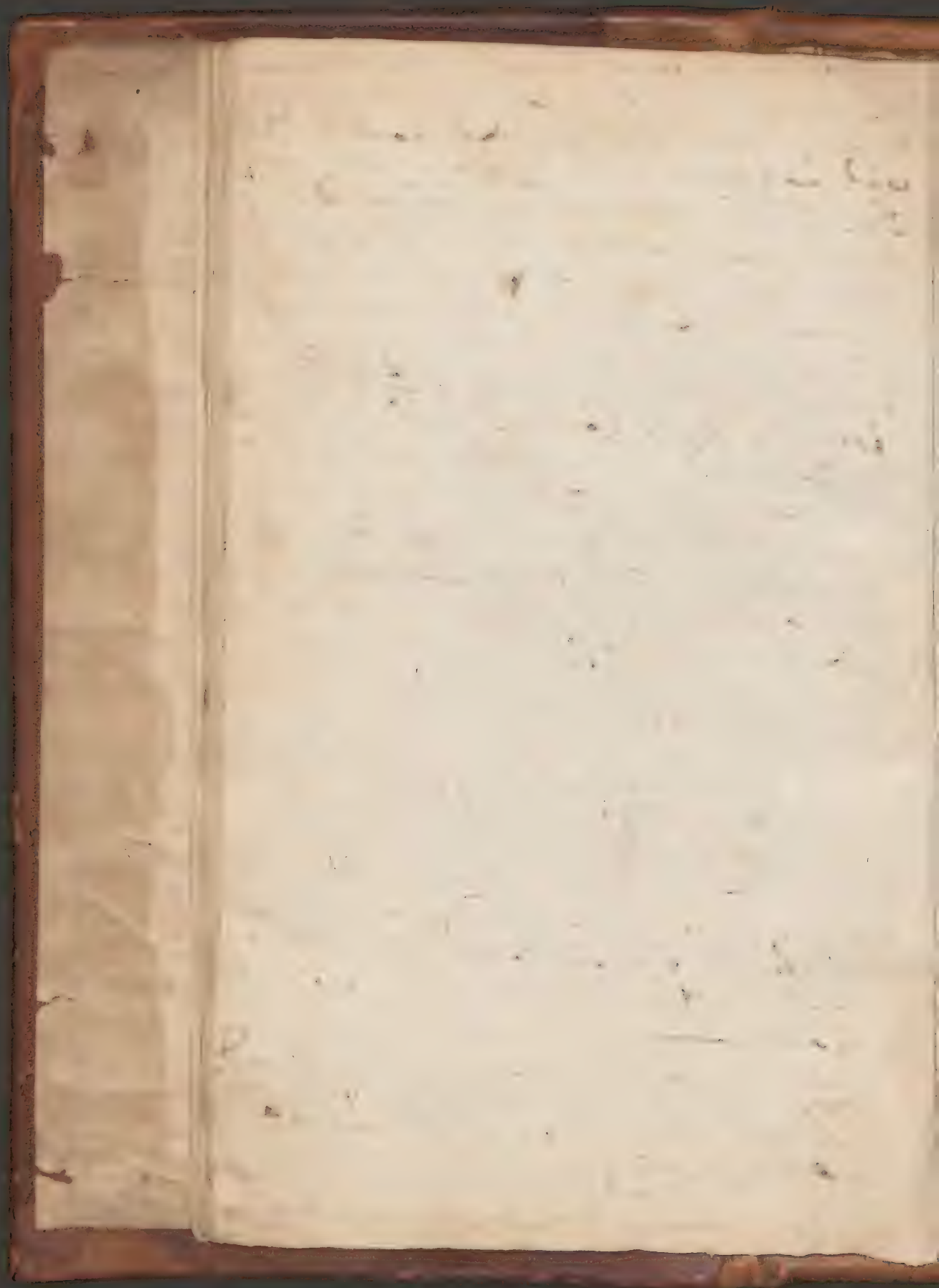
6 worms have been known to be
expelled for after they were expelled
the worms were off

Exposure is very common in persons
of fair complexion & thin & delicate
members - as the hair is
Mr. Stephen M. C. does not know
that people are more disposed to
than even ones - Mr. M. C. says
to be very frequent in the
of brain & I cannot believe it
in fact - People with the
owing to the vicinity of the
for in this case, if bld is proper
to the head with a greater impetus
Treatment - Salivary in large
quantity & partly from J. jugular vein
bleeding - stimulating elyters & even
thing it. occas. a Depress. of bld. &
J. brain is the best

Of the Epilepsy.

Epilepsy is a loss of sens. - a con-
vulsion within of J. muscles -
passing at the mouth - a
tendency to sleep afterwards - a
great increase of flow of bile
in child. It seldom lasts more
than half an hour - the worst
cases

Cause - from blows on J. head
or J. mind - horror - from the
state of J. stomach or intestine &
or J. mind
Epil. J. Mad thought once in
the moon - hysterical - by



in the bottom of off in the front
is the case

and if M.D. may be secured
 by the use of the same. — as
 it is in bleeding, & if
 you may also see a cause
 by each of the various causes
 of the same. — as the
 by fear, & if more, or as
 as a sedative. — Little can
 be done in such cases. — Total
 abstinence of meat, & of all
 food is to be taken. — If the
 patient may be used.

This des. attaches both sides of
womans nuchal ridge & fuses the
nuchal - Spinal f. region is affected
as well as the muscles —

Treatment - Dr. Hany recommends
bleeding & purging - but Dr. Galien
said that bleeding would do the
least - Dr. Hany says electricity is
of great use - Dr. C. has found it
very much so in the practice
as well as cold-bathing. & the Dr. Hany
Mankia. —

as that is, while the gut continued
being pushed up the peritoneum just
above the gut was coming on

It is a very frequent dis-
ease which affects the
small intestine & is very common — It may
happen from great injuries of the brain
or of the nerves — debility &c. — I
do not know it will affect the
continuation —

as in a person who had a large
swelling of the intestines (so much as she could
a day) of muscularity of the lower jaw was
so much enlarged & of the jaw being
from this &c. &c. — I do not know
it might be serviceable in the case of
the lower jaw

Amesbury

are the edges, and
in a different in the center of
and this is the ground of the
Island in a position, and
put into for a few days of
about 100 lbs. made with
an ounce for half an hour
the middle of the room with
accumulating symptoms of the disease
The late Dr. J. H. B. mentioning a
case of fatal erysip. w. came under
his care

Treatment — Bittis- Electricity &
even the best remedies

Of Tetanus.

The locked jaw is a spasmodic affection
of the muscles of the lower jaw and the
Protrusion of the lower jaw is when the
mouth is held open by the force of the
muscles of the jaw, and is seen in
wounds

Treatment — Opium is the primary
remedy — We may begin with 1
or 5 grains — a repeat if necessary
or give chloroform — Mr. Hunter thinks
great cold might be of service, as
putting of the limbs in ice-house
is a fatal Mr. Hunter thinks might
be of service

Subsultus Tendonum.

This is a convulsion of the tendons
which is generally a symptom of death
and that the patient will be cut off in a day
or two at most

(4) Dyslexia cum lingua, masticia &
mitu, et causis non aquis, in
temperamento melancholicis — full. Ins.

(6) Dr. Cullen defines it "Insania Universalis" —
which he divides into Mania Mentalis —
efferens — & Obscura

Suppression of the Menstruation

In this disorder the Catamenia
himself troubled with various Disorders
but I mean above all an unusual
effect on the brain, as Spic² of the
S⁹. Menstruation but some of the
a symptom of the same M² Dis² as an
effect of the colon, or uterus being
up & down the arch of the colon - Some
times for the effect of mobility, as an
effect of the same in the ear - Attention is
not needed - In general nothing is so
important as the change of air - for
the Cat² is also called in health when
the barometer is high; for a reason
hence it is beneficial - M² - for
now made a warmer climate for
the same thing in the air of England
it does not agree with the S⁹. Menstruation
Dis² and is not the occasion -

Mania (6)

This is a Dis² more prevalent in
the country and has been cured
as the *Opobrium medicum* -
There is something in the countenance
that indicates the disorder, as a medical

1a) In general however, the cause of
mania can only be discovered after
the person is dead, by dissection

as we shall say it is true of the paper
and cannot believe that it is true of the
subject The person rather than some
of them he has seen and many other subjects
except if it is said? This man says,
you'll find him speak as rational
as any other man. Conclude
it is predisposed to this kind of
remark. For strong passions are very
easily made &c.

Mania has been divided into
Mania mentalis corporis & *Mania*

The 1st or Mania Mentalis - when it arises from part^l of the mind it is the most common cause, as jealousy - love &c. The 2^d or

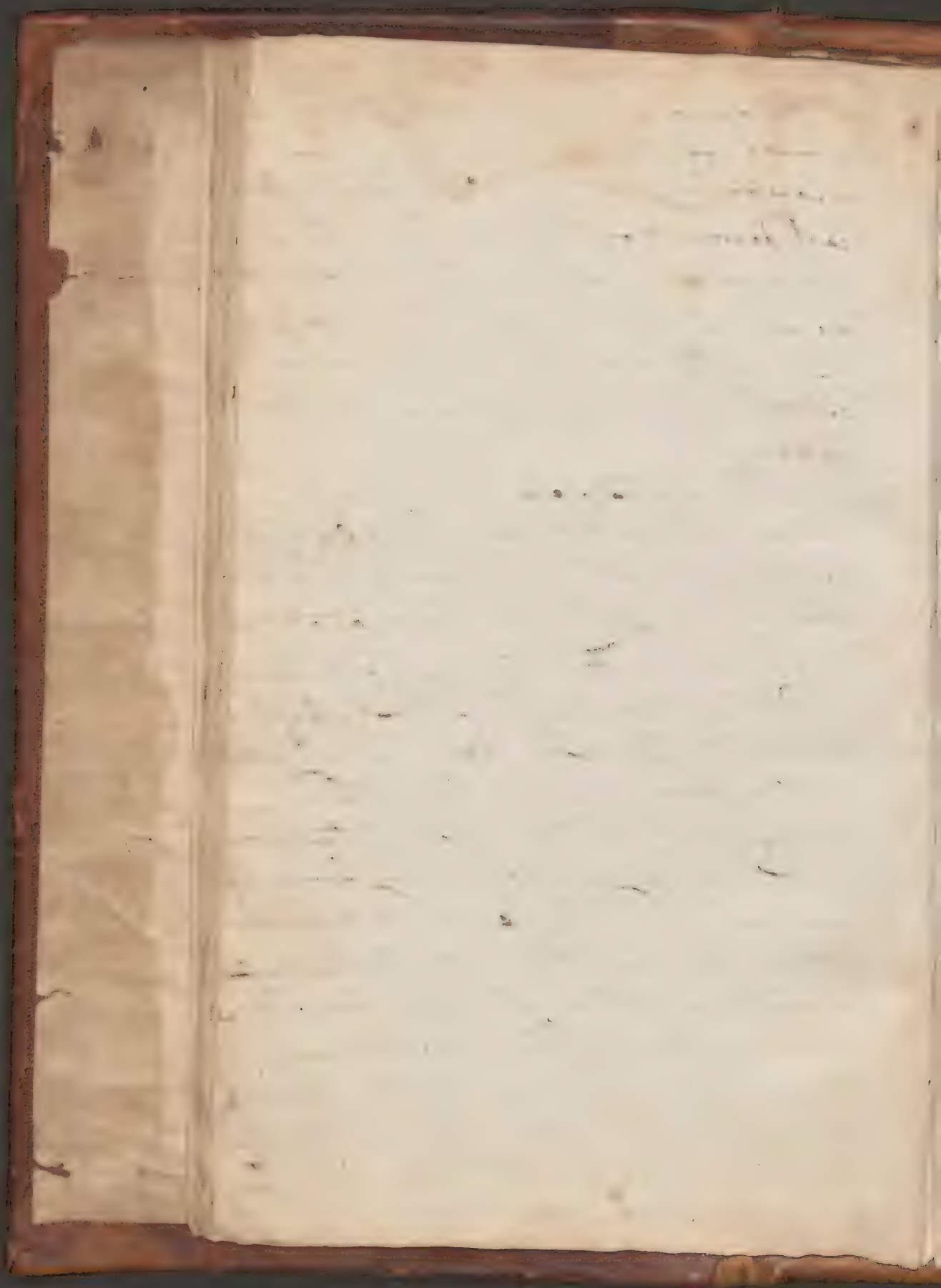
jealousy - love &c. The 2^d or
Mentia Lophorea, when there's some
fault in the brain or fr violence
done to the head as blows &c.

The 3^d or Mania Obscure, is when there are no evident signs either in the mind, or body. (a)

Some constit^{ns} are predis^{ed} to
the disorder with hereditary —
when a grandfather is mad, there
is some small^{ly} fixed or maniac
tendencies thro' the family — M. C.
considers those people who are const^{ly}
gliding into insanity with peculiar
reasons as most to avoid and

10. M^r. mentions the case of a
girl who cut her throat just above
her breasts - and when asked the
reason of committing such an action
she answered that an evil Demon
was at ^{work} whispering in her ears - and
that she sh^d. be damned -

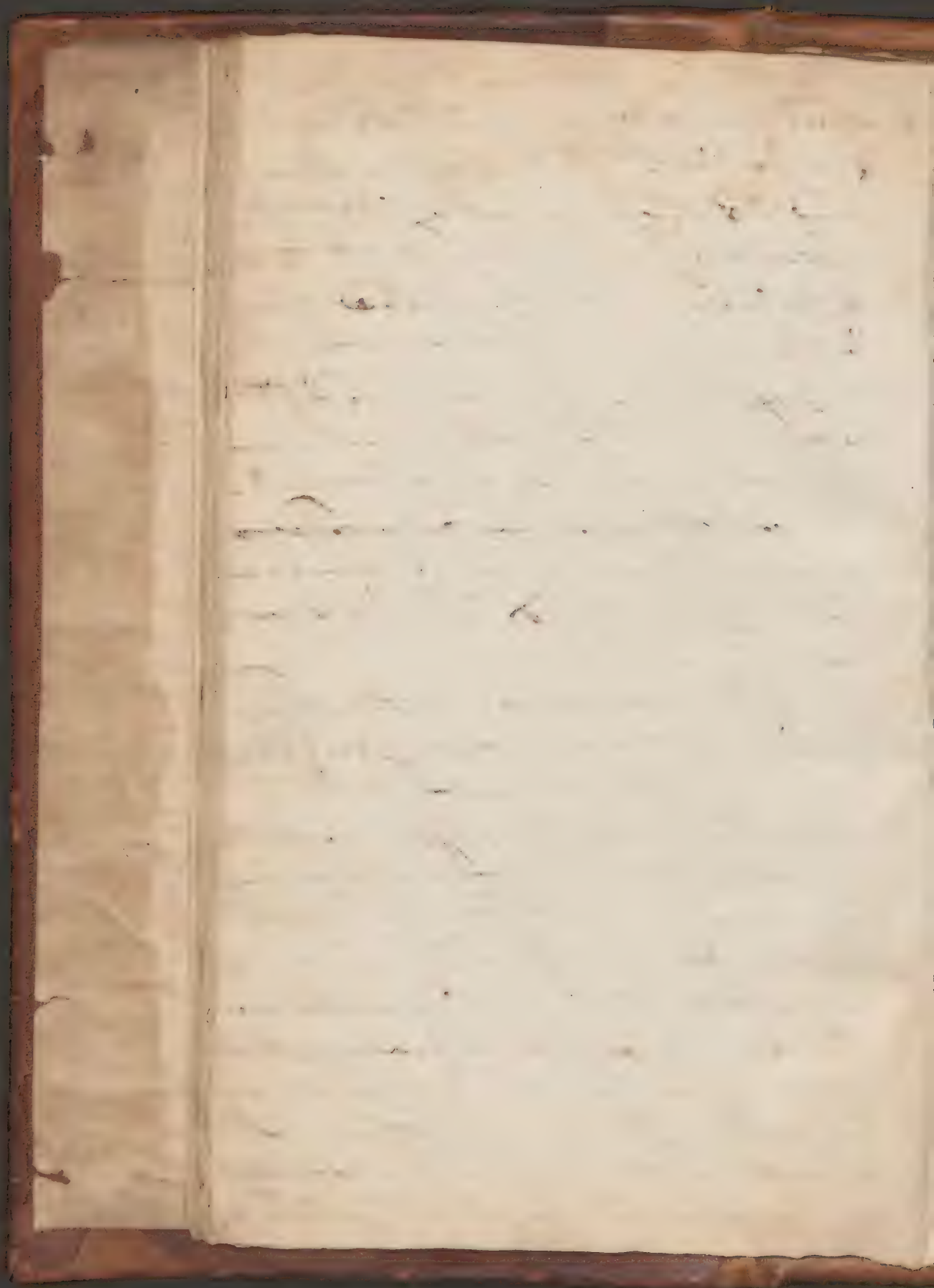
11. The pencil land is indeed since
P. with a quantity of some matter
in it



There is some fine people
more conscious - finer & brighter
& in particular the medulla oblongata
and it is most probably the
medulla oblongata which is the
of the brain - but it is not of the
ough, it appears like cream -

Treatment — This dis. is diff. & he can't for what will remove tumour or sinus of the brain? — but ~~however~~ ~~as a~~ ~~for~~ ~~the~~ ~~reason~~ ~~the~~ ~~mean~~ ~~of~~ ~~the~~ ~~occasional~~ ~~remedy~~ ~~is~~ ~~some~~ ~~times~~ ~~revealed~~ ~~and~~ ~~the~~ ~~disorder~~ ~~is~~ ~~palliated~~ —

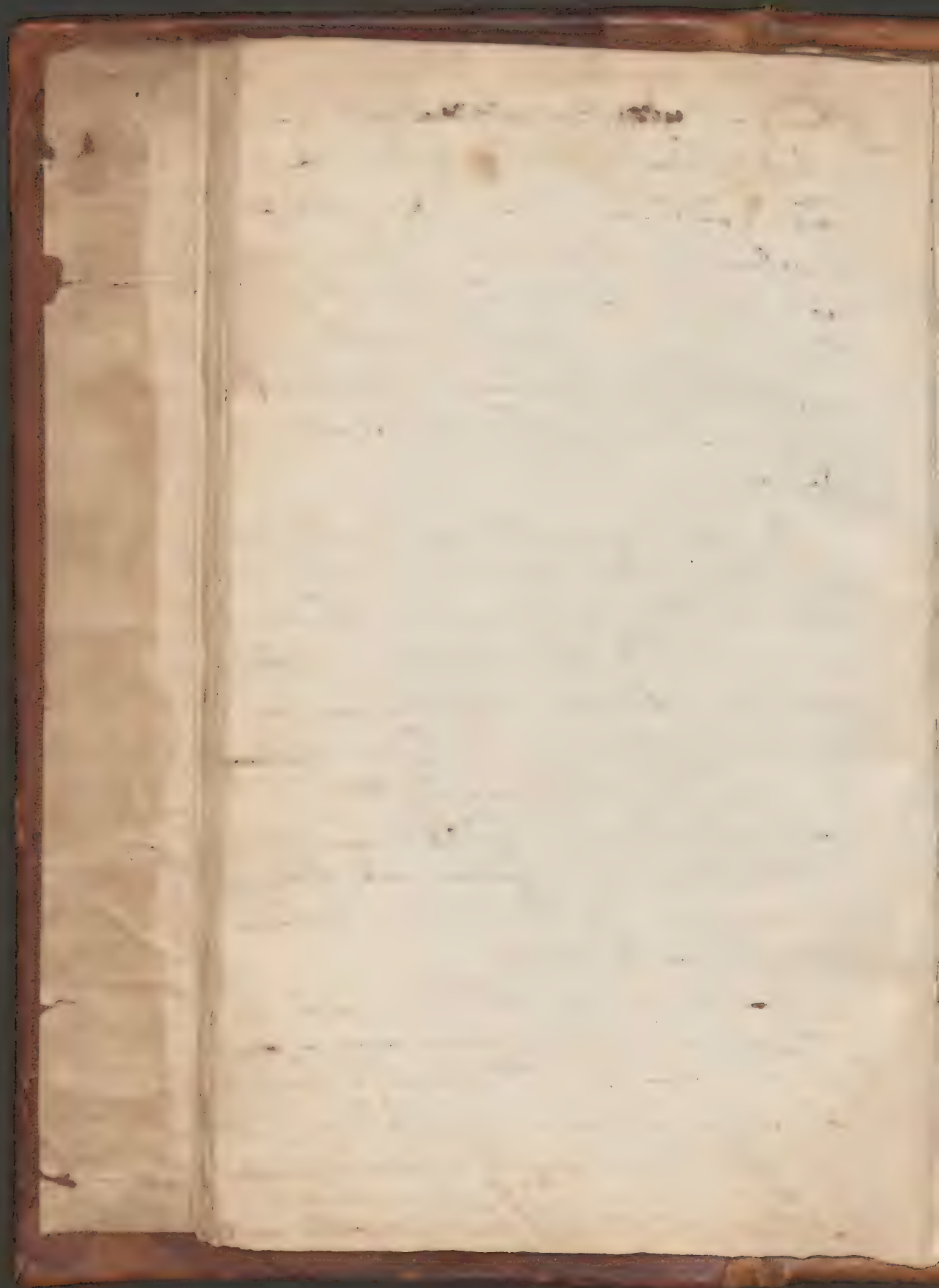
If the mania is in the mind
(as the Jan. 1800, malady) the
subject must be under the sign
of the Cat. and the subject must
never be over-taught's upon in
his hearing. but other signs must
be made use of to direct him,
attention, for that it was the cause
the can. practice is pursuing - but
it is persisted in, a drop may
be good - M. C. never needed it
more than relieve his complaint
in the present for it did return.



The best remedy is to use the
J. Mercier's ~~after the action~~ external
as by blisters apply'd to the ~~the~~
head - ~~gum~~ - ~~an~~ - ~~man~~ . & apply
or setons in the neck - It is a
remedy of addition strength
for disorder the Mercier's
has extended to the lower extremities
as by blisters apply'd to the soles of
the feet -

This Dr. J. Mercier's ~~is~~ ^{is} a
period in the season for it is
genial in the spring, when bleeding
may be with plentifully & health
as a purgative - Dr. J. Mercier's has seen
very good effects for cantharides & calomel
has cured a gentleman two times with
when shee bleed, bled - and by
putting him into flannel to
determine the blood to the brain
externally to the skin -

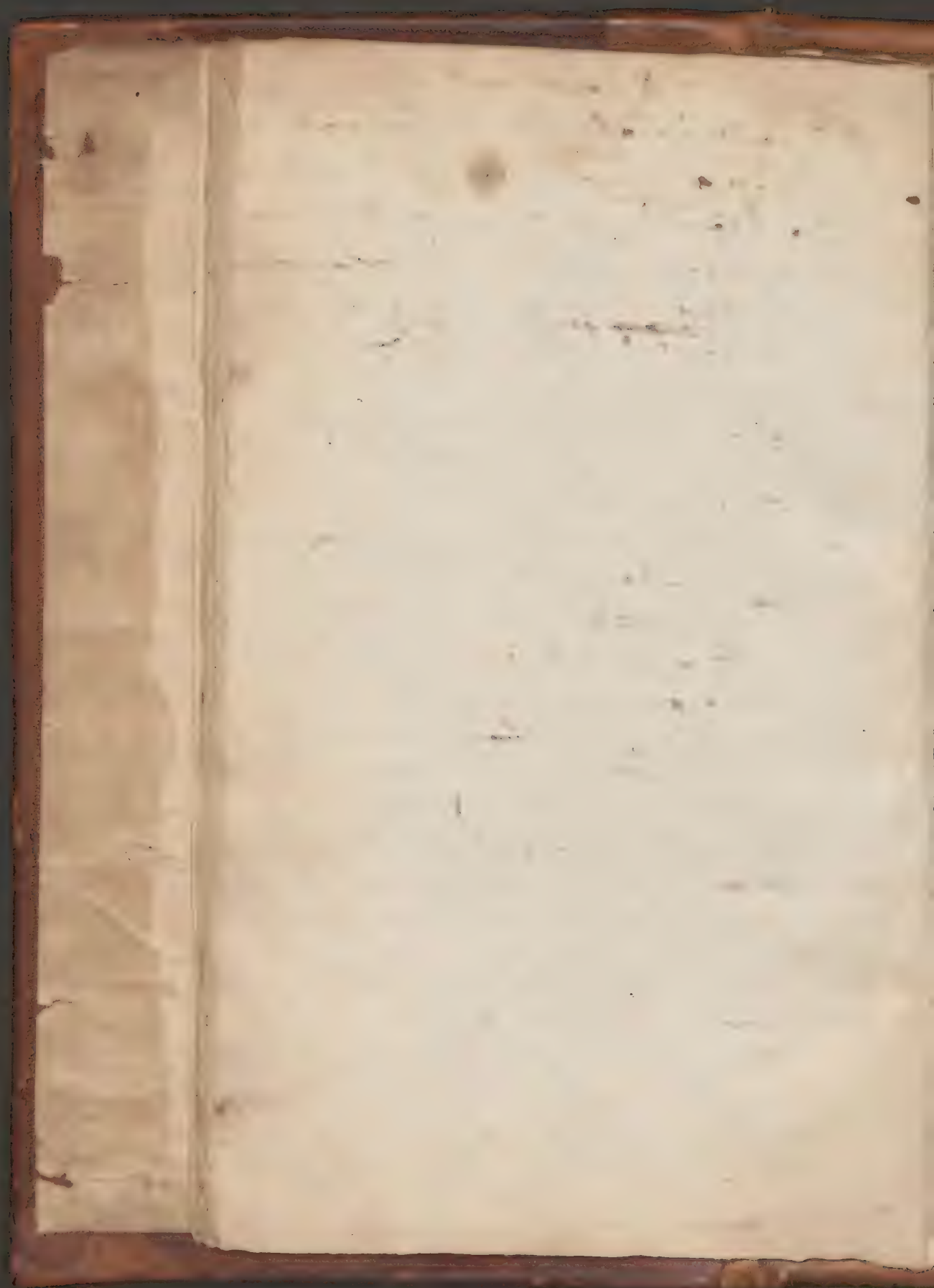
Mania is sometimes a mark of
a diseased proceeding, as a nervous one
and under that Dr. Hunter observed
that in such cases the Pa. is
well after it - I have seen mania arise
from labor in the 7th and remark
that the patient after 3 months



The brain may be injured in various
 ways & the result is a variety of
 diseases, but the most common is
 inflammation of the brain, which is
 often the result of a blow or
 other injury to the head.

Explain 2 of the Ovaria system
suppl. by means of the present in the
case of disease. M. G. never examining
the Ovaria. Considered. It has been
the Ovaria loaded with blood. In
general, a general inflammation of the Ovaria
but only a partial one. In this case
the ovaries are commonly red.

The inf. of the brain was in various parts as the cerebellum, medulla, &c. &c. & the inf. of the brain was in various parts as the cerebellum, medulla, &c. &c. & the inf. of the brain was in various parts as the cerebellum, medulla, &c. &c.



Coma is a g. Disor. of the
Cerebrum - How this kind of
M. L. can I say - but it has
certain effect on the nervous
Sys. is strongly excited by cold
as a powerful sedative on the
nerves. Thence it may happen
some affections of the brain - M.
supp. M. much sleep there is
pressure on the brain, by a delem.
of the M. L. may be prod.
cold. Whether coalescence occurs in the ventricles
prod. any inclination to sleep M. L. can
say but believes it does not - M. L. can
sleep all the organs of the senses are
at rest, except the sense of hearing

Letargy M. L. is a g. Disor. most
commonly of the same other Dis. in
brain. than by itself

Coma seldom happens, but as the
cause of some other Dis. as Fracture
of Skull, & Fever. Fracture of Skull
Fever - It is not easy to be distinguished
from Letargy

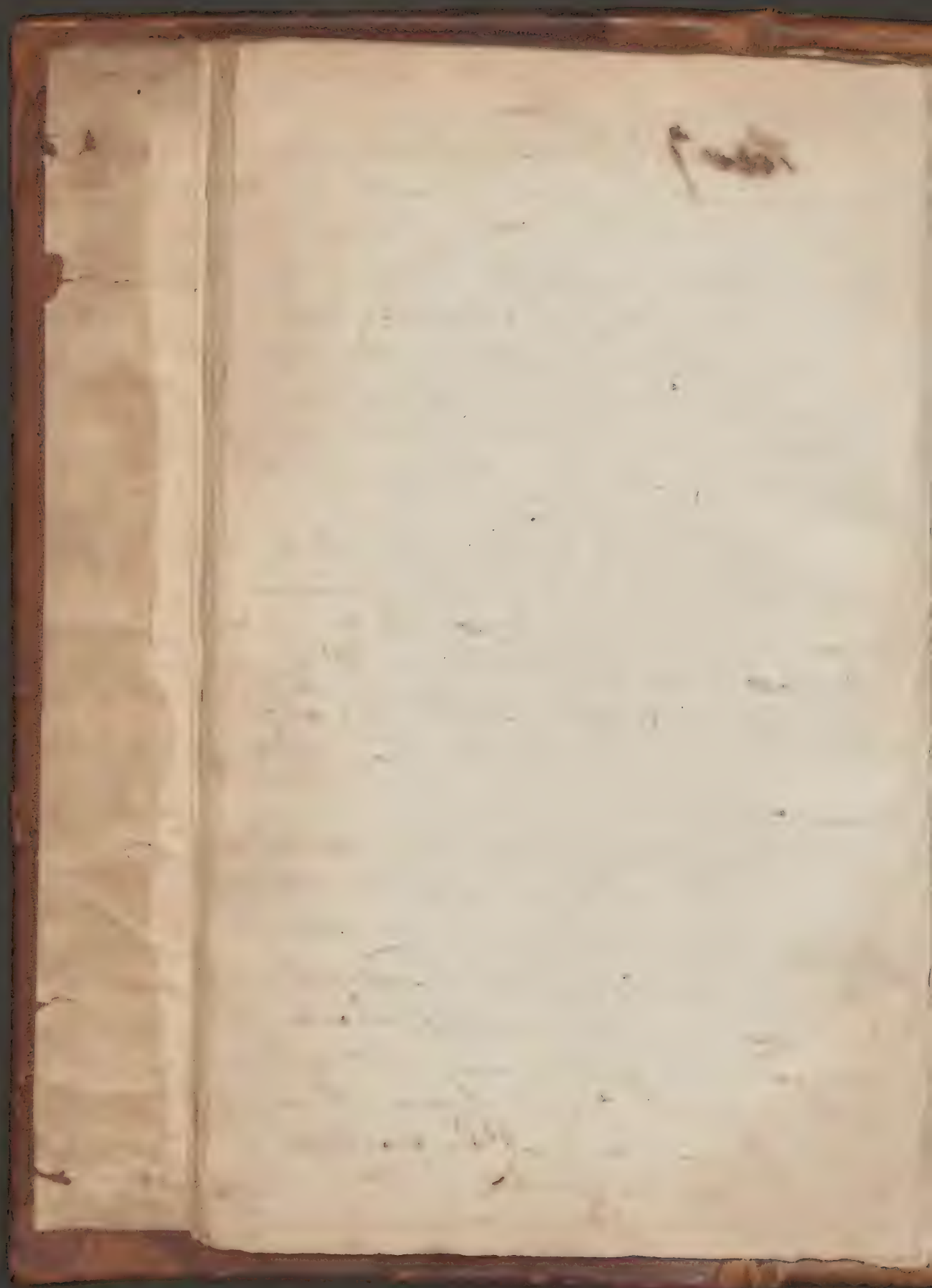
Coma Vigil is a g. Disor. of the
Cerebrum - M. L. has known
cases where it lasted in 3 days
appears very much like the Letargy

This is supposed to be an effect of
nerve system — It appears
begin in the stomach & ultimately
get the brain —

~~Pain~~ **Pain** is a perpetual motion
of the body, mostly in early life, in the
young infant. The attack of heat
or fever, or a slight cold
is very slight & depends on
a small quantity of indigestible in the
stomach. It may arise from a cold in
the chest - sleeping in the bed, or
sitting in the sun. It is produced by
the person awake.

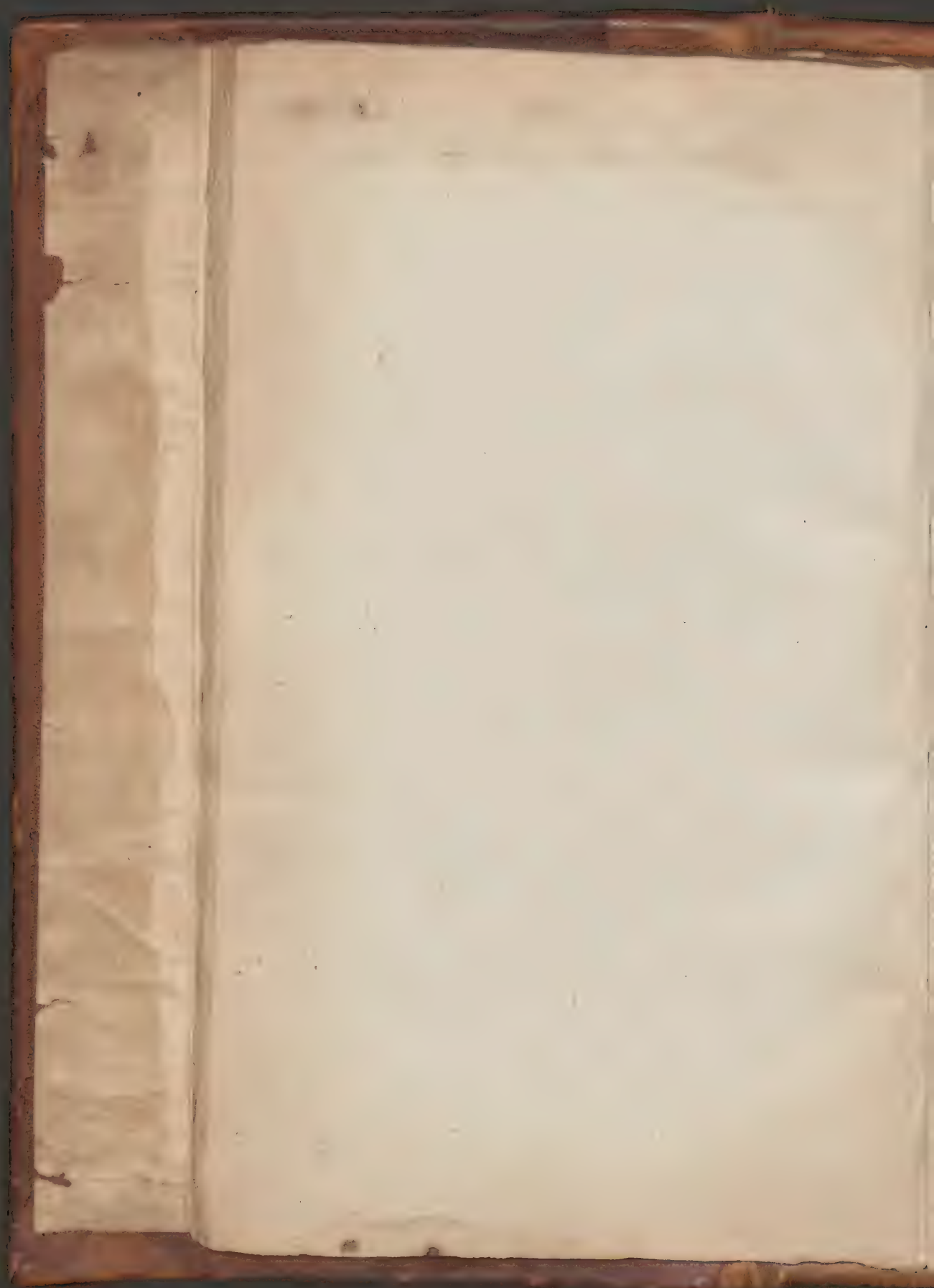
With regard to the cure, the
state of the stomach - proper regimen
exercise in riding on horseback &c. are
the best to be attended to. Mr. L. says
the bitter & steel, except it is added
to water in the chest, when it is
incurable.

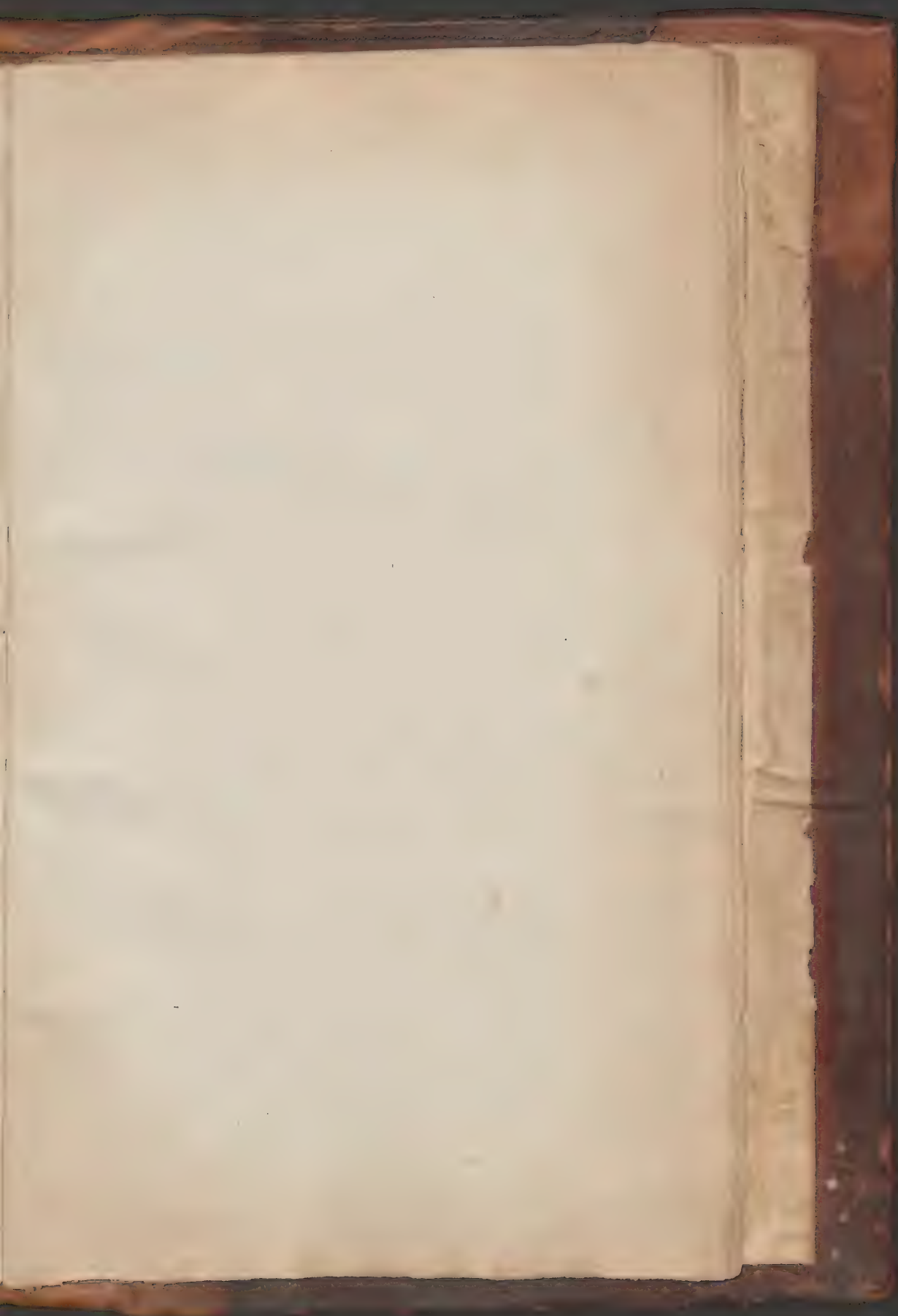
Vertigo depends generally on a
weakness of the stomach, or the cause is removed
The disease is chiefly owing to a
defect in the stomach, or indigestion
in the stomach, exercise, & corroborate
are good. It is a symptom of
great disease, & before it is
removed. It may be produced by fracture
of the skull. Mr. L. says
it is a disease of the stomach.

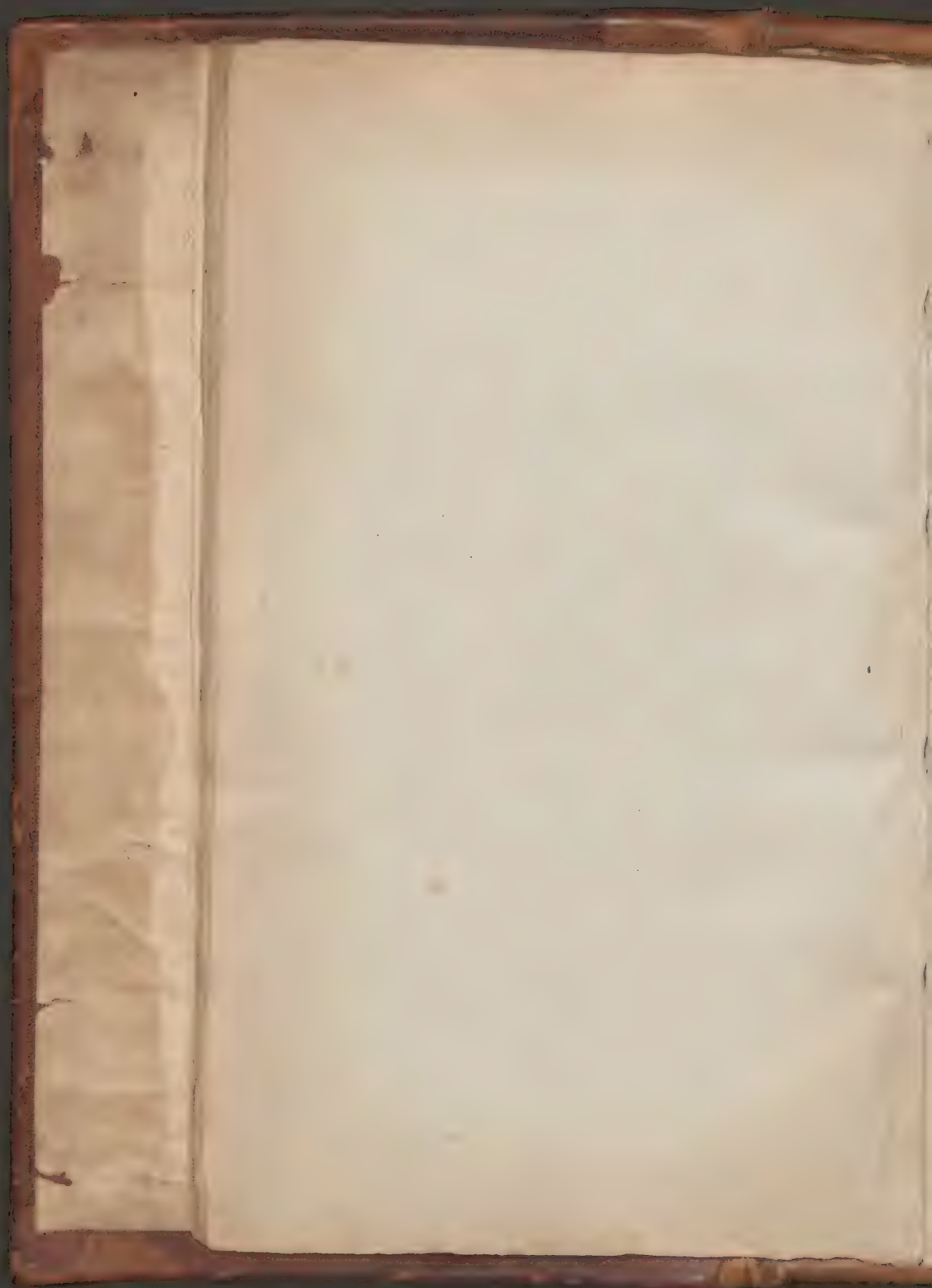


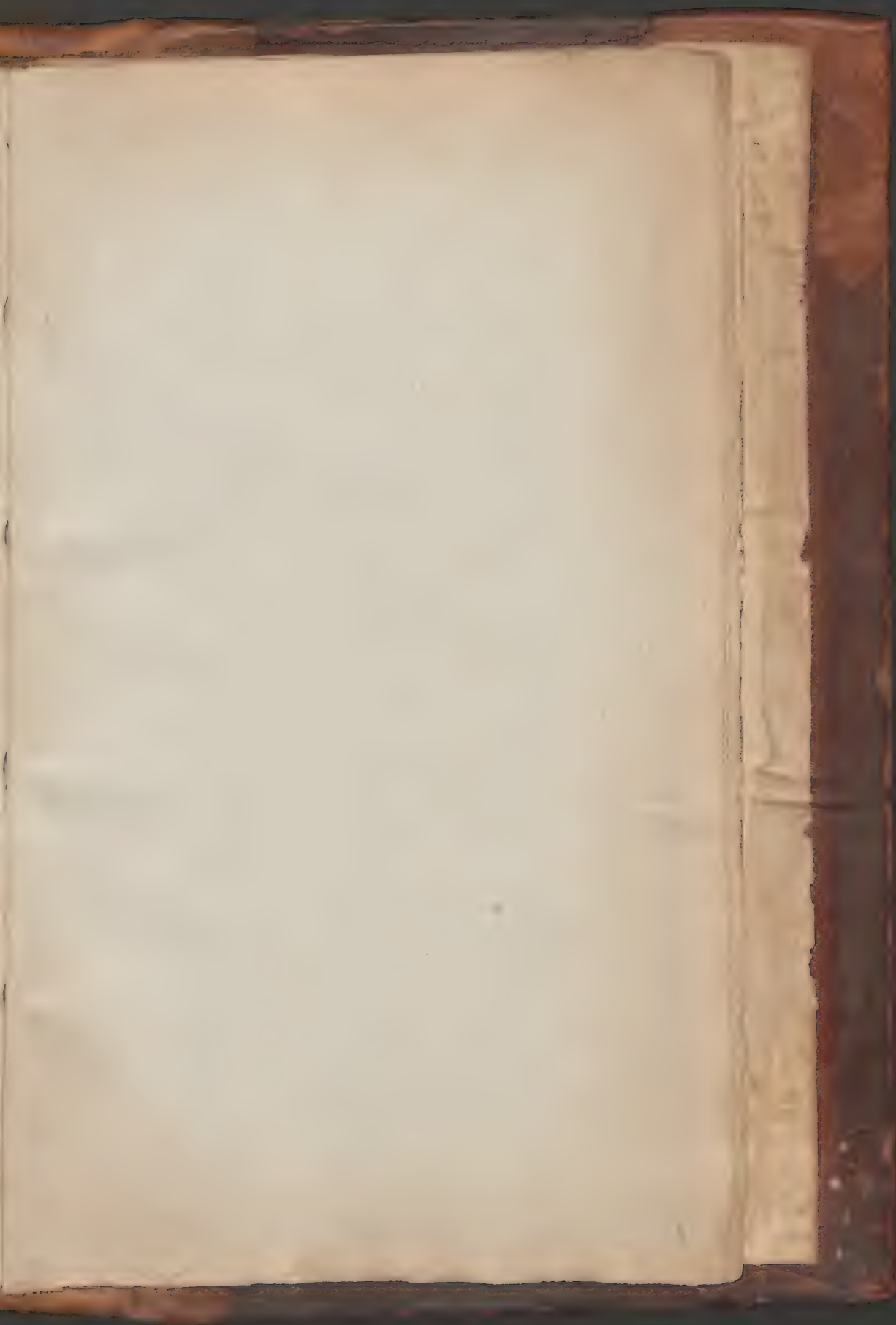
to run over it to the
sumara garden of the
monks.

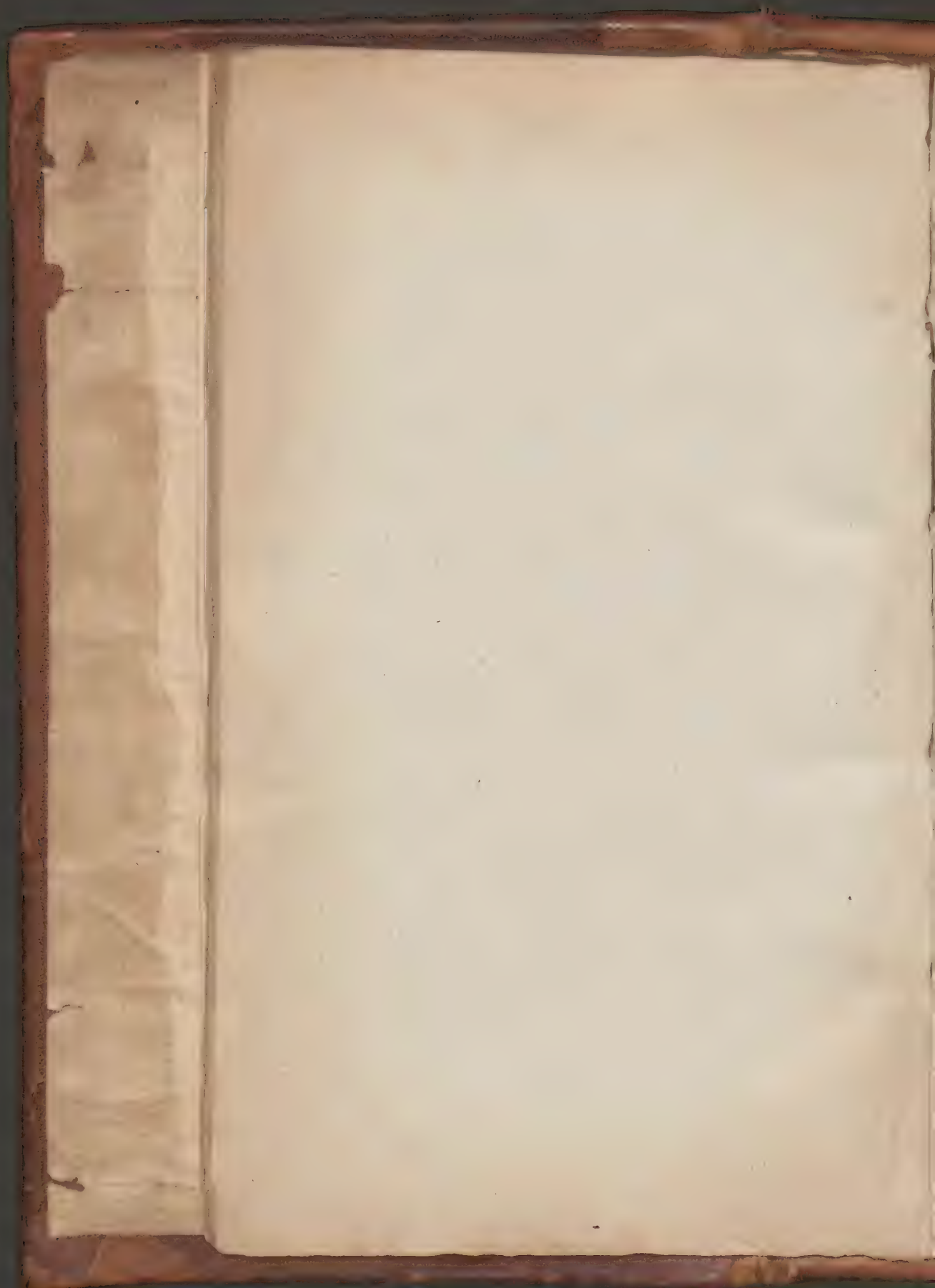
The end.

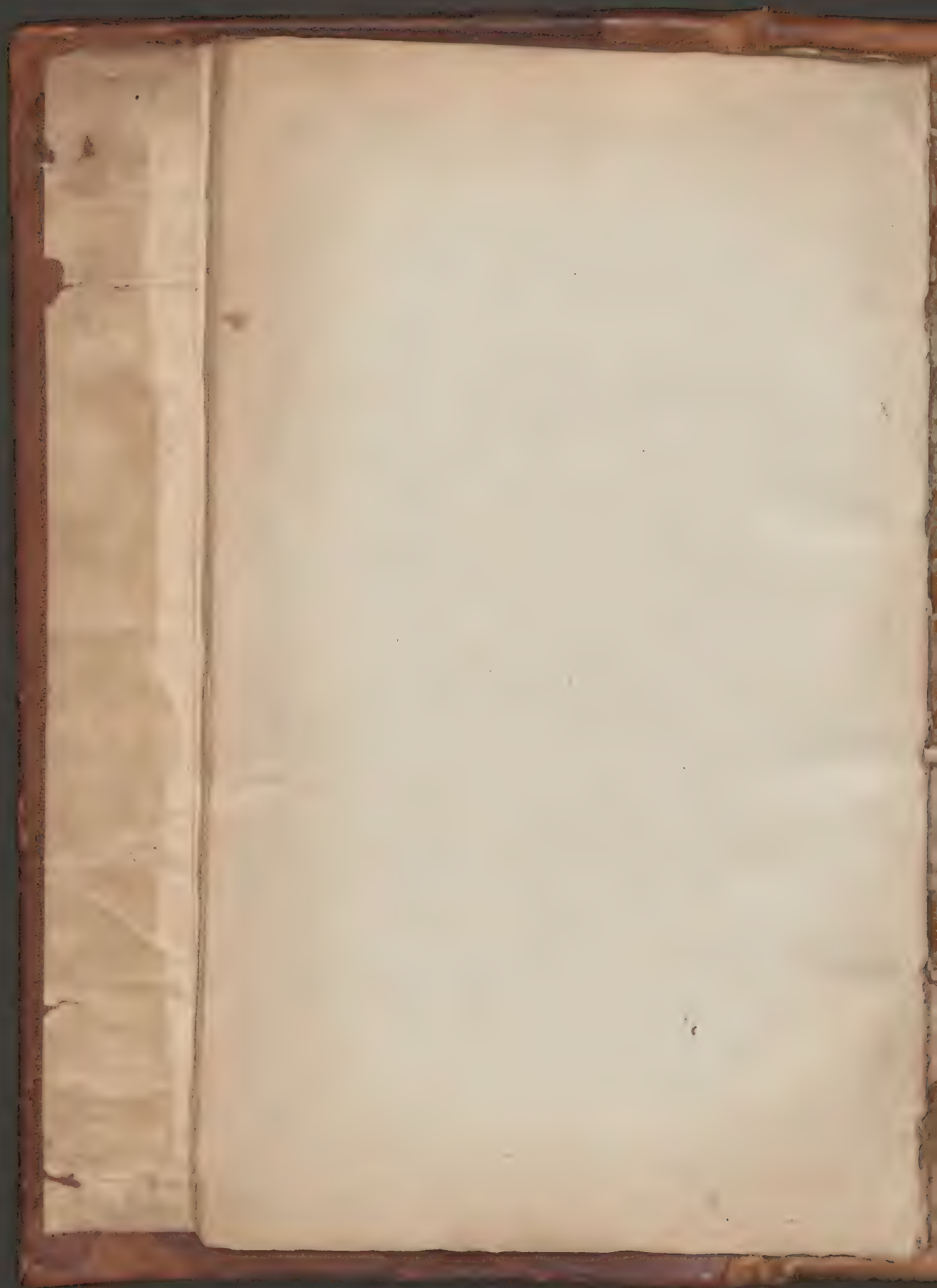


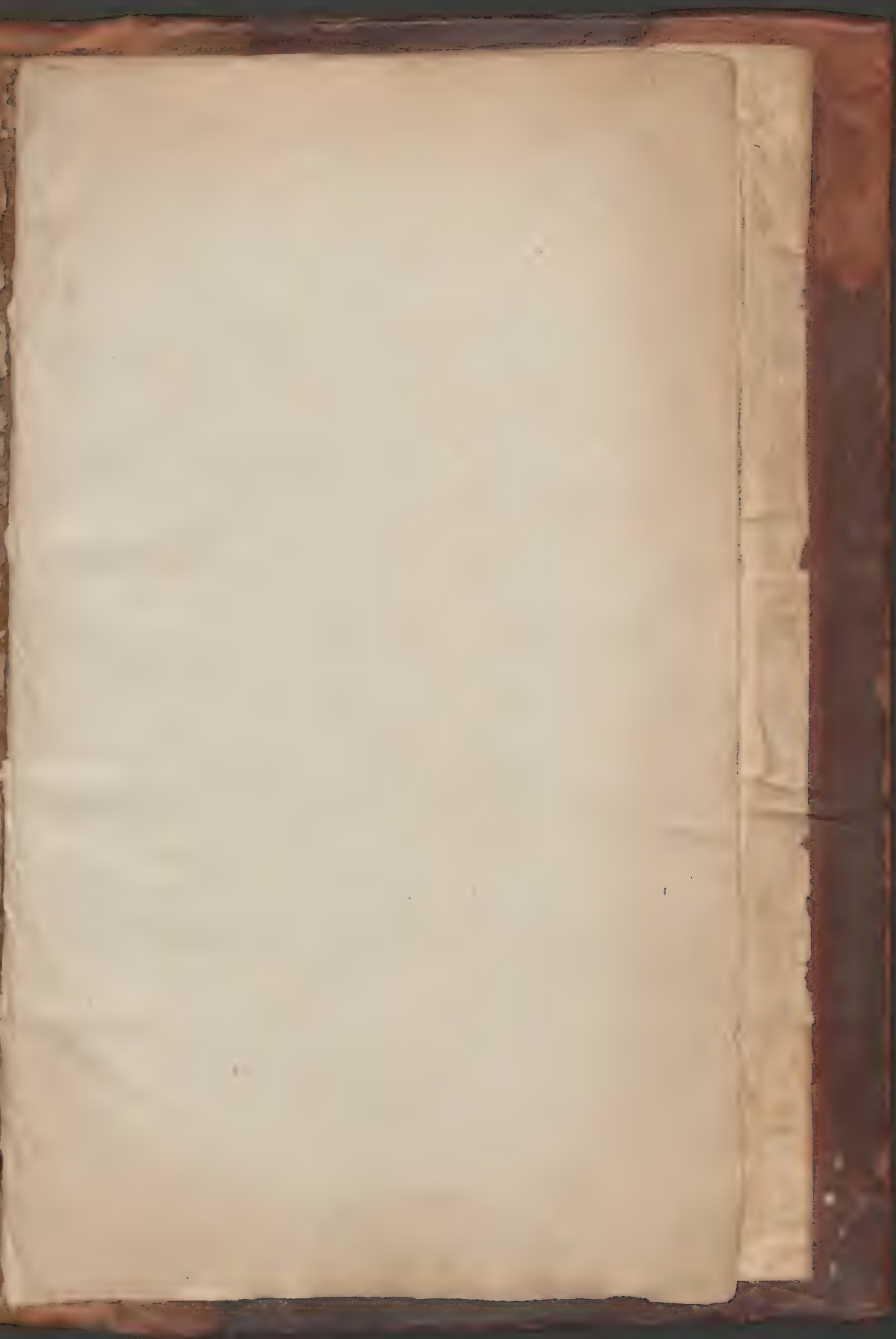




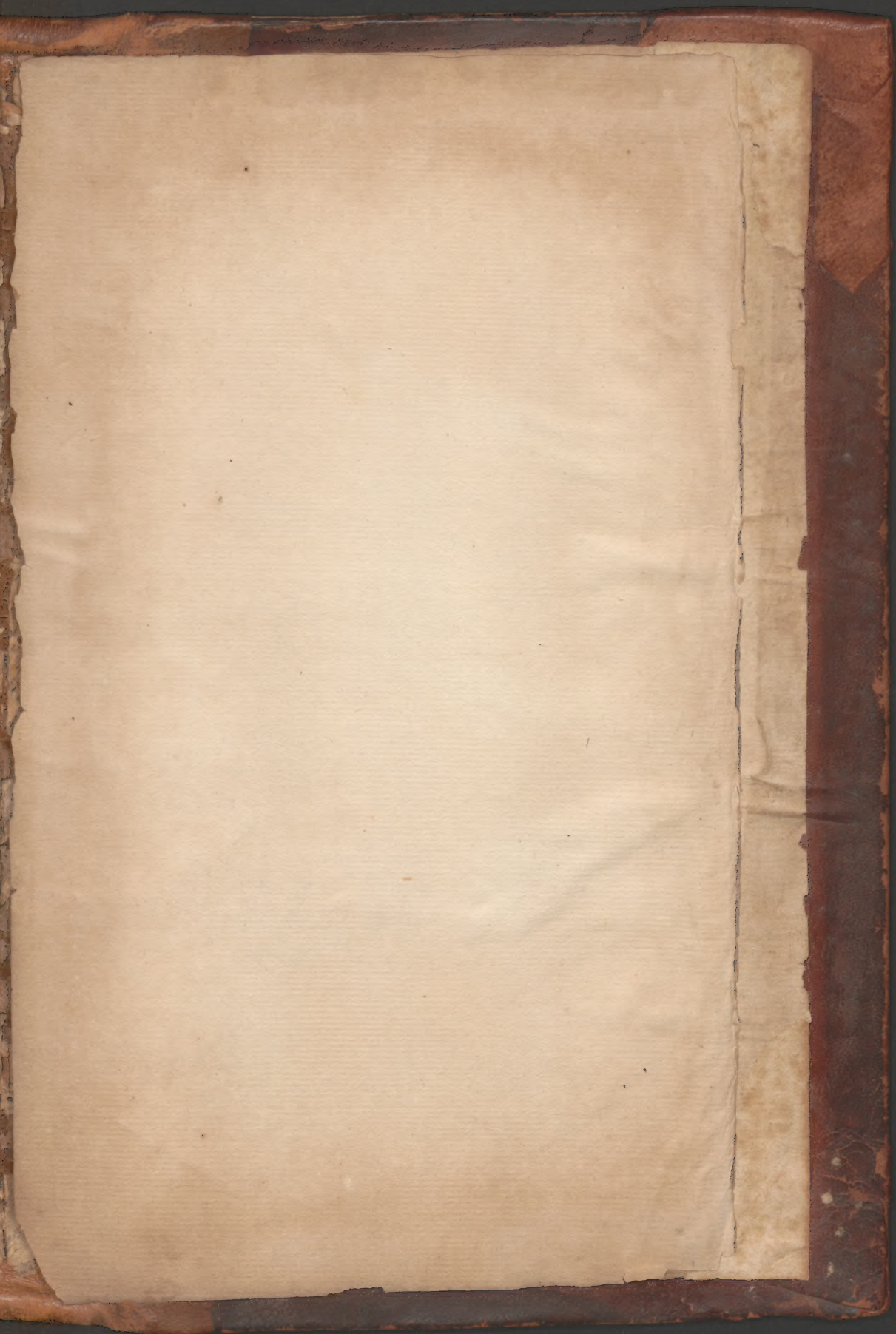


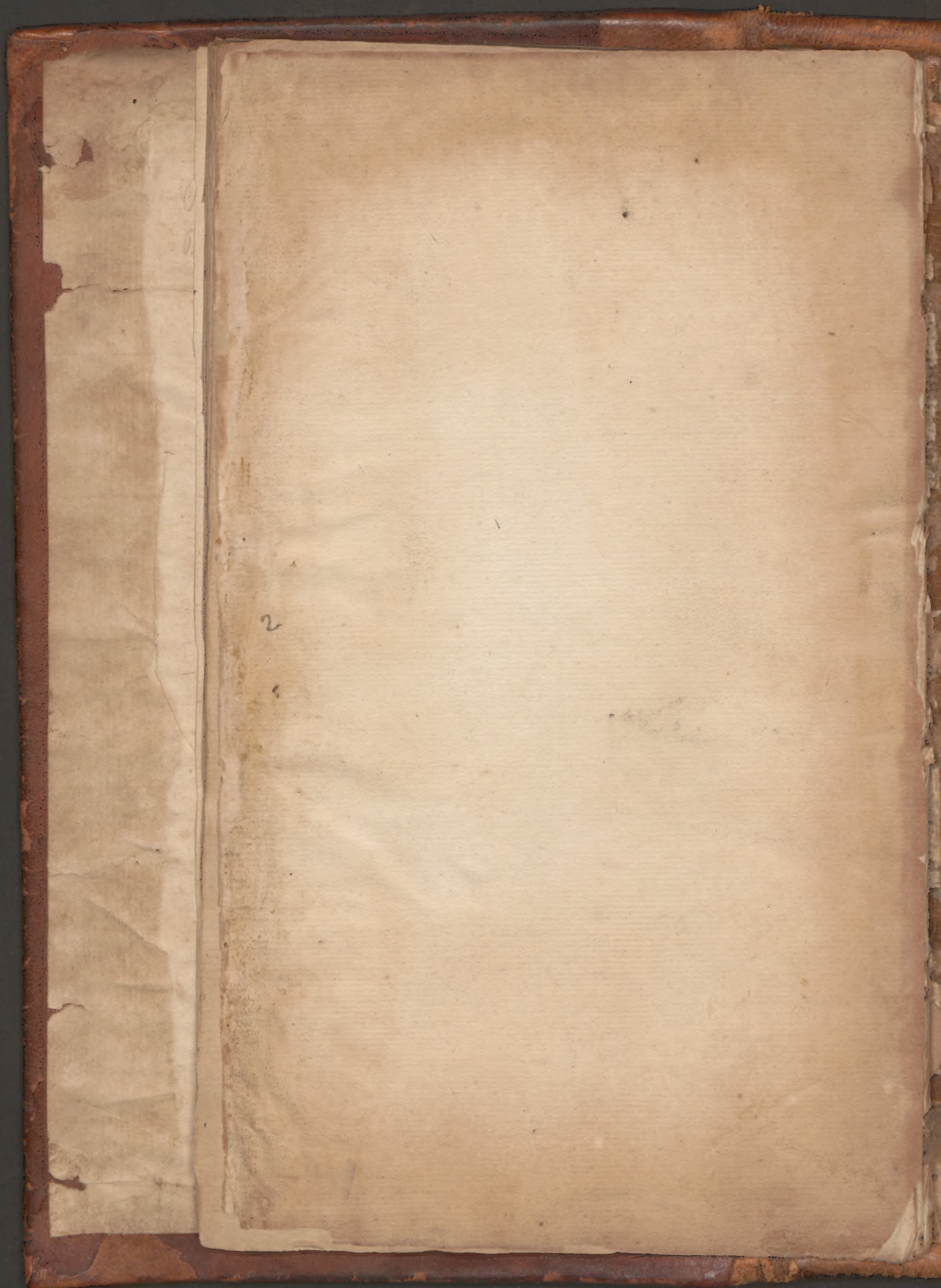












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